

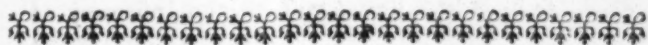


*Lately Published.*



**P**harmacopœia Practica: Sive Præscriptorum Syndrome, in qua tres Præscriptorum ferè Chiliades, Morbis omnibus tam internis quam externis accommodatorum, in Classés digeruntur: Quæ excerpuntur, I. Ex Variis Authoribus. II. Ex Pharmacopœiâ Londinensi. III. Ex Pharmacopœiâ Batæana. IV. Ex Pharmacopœiâ Fullerii. V. Ex Præscriptis Vulgari in usu apud celeberrimum ac nuperum Johannem Radcliffium, M. D. Quibus accefferunt Scholia ac Observationes, quæ Remediorum energias explicant: Unâ cum Indice rerum locupletissimo. Operâ Evardi Strother, M. D.

Londini: Impensis Caroli Rivington, ad Insigne Bibliorum ac Coronæ in Cœmeteria D. Pauli.



344 353

\*\*\*\*\*

APPROBATION.

**I** Have perus'd this Book, and find it  
Short, Easy, and Useful.

Edward Strother, M. D.

\*\*\*\*\*



A  
Compendious and New  
**METHOD**  
OF PERFORMING  
*Chirurgical Operations,*  
FIT FOR  
YOUNG SURGEONS.

To which are added,  
Short and easy Directions how to Manage  
the *VENEREAL DISEASE.*

By EDWARD DUNN, Surgeon,  
Belonging to the AFRICAN Company.

— *In est sua Gratia Parvis.* —



L O N D O N :

Printed for CHARLES RIVINGTON, at the  
*Bible and Crown* in *St. Paul's Church-Yard.*  
MDCCLXXIV.



O 6683

KI  
D64



TO HIS HIGHNESS

JAMES  
Duke of Chandois.

May it please YOUR GRACE,

**S**INCE I have the Honour to be employ'd as Surgeon in the African Company, whose great Encourager Your Grace is, and under whose Influence there is no doubt of its being prosperous and thriving, I could not throw these little Labours, the Fruits of my leisure Hours, at the Feet of a more noble, more judicious, or more worthy Patron, than Your Grace's; they are not worth  
Cen-

## THE DEDICATION.

*Censure, however Your Highness's Protection will give them Sanction ; and if they prove of any Use to the younger Surgeons employ'd in the Company, I have my Aim, and shall not cease, till I have run thro' all the Parts of Surgery and Physick, I have found necessary, in the 20 Years I have us'd the African Coast, for the Preservation of the Lives of those plying there, as also of the Company's main Branch of Profit.*

I am, with all due Submission,  
MY LORD,

Your Highnesses, and the Company's most Obedient, most Faithful, and most Humble Servant,

EDWARD DUNN.

T O



TO THE  
YOUNG SURGEONS.



IN publishing this small Volume, it is propos'd only to teach the Manner of performing the Operations of Surgery, by a Method more short and easy, than has been hitherto treated on by Authors.

Nothing is advanced, which is not grounded on the Practice  
of

## *To the young Surgeons.*

of the most able *Surgeons* of the present Age. No *Diseases* are here commented upon, leaving every one to make such Systems as best suits their own Imaginations: For it is more of Use to stick close to the Operation it self, which ought to be the principal Aim of those, who wou'd apply themselves to Surgery.

IT is not pretended, that we have compil'd a finish'd Piece, for it is well enough known, that Use and Practice, add always Perfection to Arts: But at least, there is Room to hope, that you will find something more here, than what is expected.

I have added a Treatise on the *Venereal Disease* explain'd so clear,  
that



## *To the young Surgeons.*

that you may, by following the Rules here prescrib'd, surely remedy all the Accidents, which accompany those troublesome Indispositions.

MEAN while all this Labour must be look'd upon as a simple Essay. Time may make it better.

IN fine, if you don't find in this Discourse, all that Delicacy and Turn of Language some may expect, it is sufficient to say, that it is design'd only for Instruction.

THE use, this small Sketch will be of, to young and unexperienc'd Surgeons, is very evident; for leading them by the Hand in every Step of an Operation, in a  
a clear,

## *To the young Surgeons.*

clear, easy and succinct Manner, is the Design; where ambiguous Circumlocutions are purposely avoided, and useless Distinctions, are dropp'd. The more any Artist incumbers his Discourse, the more he puzzles his Hearers or Readers, they lose the useful and necessary Rules in giving Ear to the trifling, and less profitable Parts of the Harangue, and are forc'd, when they apply to Practice, to drop those Superfluities by the Help of a good Judgment. Here no more is said, than what conduces to direct in a concise, easy, and plain Style; nor yet less than suffices.

It is necessary a young Surgeon shou'd see Operations perform'd, because

## *To the young Surgeons.*

because he wou'd then better perceive the Use of this Abridgement ; however, if he has never seen any, or has lost the Notion of any one Operation ; in reading this little Book, he recovers it, or easily conceives how it is to be done, by a very little Labour.

MOREOVER, Patients will call in Physicians to be present, to advise or overlook ; their Business is not to operate, but they ought to know, in what Manner the Surgeon shou'd perform it, and when it is of absolute Necessity, and yet without Loss of Time ; consult this small Volume, it may be depended upon to answer their Ends.

## *To the young Surgeons.*

*Art is long, and Life is short,*  
says *Hippocrates* : The Business of  
Life is not Study, but doing  
Good : It shews therefore the Ju-  
stice of an Author, when he pro-  
portions the Rules of Art to the  
Length of our Days. And when  
all that can be said on any Point,  
is couch'd in a little Room, then  
this Proportion may be said to be  
justly observ'd, which I hope the  
young Practitioners in Surgery,  
will find verified in this Treatise.





THE  
TABLE  
OF THE  
OPERATIONS.



	Page
CHAP. I. <b>O</b> F the Operations of Surgery in general.	1
CH. II. Of Sutures in General.	7
CH. III. Of Sutures in Particular, and the Manner of performing them.	13
CH. IV. Of Restrictive Sutures.	17
CH. V.	

# The TABLE of

	Page
CH. V. <i>Of the Gasteraphia.</i>	22
CH. VI. <i>Of the Exomphalos.</i>	34
CH. VII. <i>Of the Paracentesis.</i>	40
CH. VIII. <i>Of Hernia's.</i>	49
CH. IX. <i>Of the Hydrocele.</i>	58
CH. X. <i>Of a Phimosis and Paraphimosis.</i>	63
CH. XI. <i>Of a Stone in the Urethra.</i>	65
CH. XII. <i>Of Lithotomy.</i>	67
CH. XIII. <i>of the Fistula in Ano.</i>	74
CH. XIV. <i>Of the Empyema.</i>	82
CH. XV. <i>Of a Cancer.</i>	90
CH. XVI. <i>Of the Aneurism.</i>	92
CH. XVII. <i>Of the Trepan and Fractures of the Skull.</i>	96
CH. XVIII. <i>Of the Operation of the Trepan.</i>	116
CH. XIX. <i>Of the Fistula Lacrymalis.</i>	122
CH. XX. <i>Of a Cataract.</i>	125
CH. XXI. <i>Of the Polypus.</i>	129
CH. XXII. <i>Of the Hare-Lip.</i>	131
CH. XXIII. <i>Of the Bronchotomia.</i>	134
CH. XXIV. <i>Of Amputation.</i>	136
CH. XXV.	



the OPERATION.

	Page
CH. XXV. <i>Of the Reunion of a Tendon.</i>	150
CH. XXVI. <i>Of the Cæsarian Operation.</i>	153
CH. XXVII. <i>Of the Paronychia.</i>	154
CH. XXVIII. <i>Of the Application of Causticks.</i>	155
CH. XXIX. <i>Of Setons.</i>	156
CH. XXX. <i>Of Cupping-Glasses.</i>	158



THE



T H E  
TABLE of the *Venercal Disease*.

	Page
CHAP. I. <b>O</b> <i>F the Definition and Signs of Lues Venerea.</i>	161
CH. II. <i>Of the Origin of the Pox.</i>	166
CH. III. <i>Of the Cause of the Lues.</i>	173
CH. IV. <i>Of the Cure of the Lues.</i>	178
CH. V. <i>Of the Gonorrhœa.</i>	180
CH. VI. <i>Of the Ulcers of the Penis.</i>	191
CH. VII. <i>Of a Venereal Bubo.</i>	194
CH. VIII. <i>Of the Manner of treating the Lues.</i>	198
CH. IX. <i>Of the Nature of Mercury, and the Manner of its acting.</i>	212





A

Compendious and New  
**METHOD**  
OF PERFORMING

*Chirurgical Operations, &c.*



CHAP. I.

*Of the Operations of Surgery in  
General.*



THE Art of Physick treats of  
three Points: *Diet* is the first  
and most common; *Pharmacy*,  
is the most useful; and *Sur-*  
*gery*, the most necessary, the chief, and  
most evident. It lays open to us all the

B

Ma-

Machines, and without its industrious Operations, Physick is blind.

SURGERY endeavours the Cure of Maladies of the Body, in four different Manners; it unites the Parts divided, it divides them when they are united contrary to the ordinary Course of Nature; it takes away extraneous Bodies; and lastly, it adds some Organ, which is wanting for the Necessity, or the Perfection of a Body.

THE Business of Surgery, is a methodical Application of the Hand to a human Body, to give and conserve Health, as the Word *Chiurgus* signifies, because what is done is perform'd *συν τῷ τῶν χειρῶν ἔργῳ* by a Handy-work.

SOME Authors divide the Operations according to their Essence, or rather according to their *Genus*, into *Synthesis*, (Composition), *Exæresis* (taking away) and *Prosthesis* (Addition). Others according to the Diseases, and some Part, where they are made.

THE

THE Operations very often take the Name of the Part, where they are made, for Example, a *Bubonocèle*, the *Hare-Lip*, and *Castration*.

THERE are three general Operations; the first and most common is *Synthesis*, it comprehends all the Operations, and all the Means for reuniting the Parts.

IT is call'd *common*, because it is convenient for all the rest, and contains under it Bandages, Junks, and many of the Instruments which are useful in Surgery.

A particular *Synthesis*, is only useful for certain Distempers, and certain Parts. One replaces the fractur'd and luxated Bones, and another the *Omentum*, and Intestines, as in *Hernia's*.

*Diarexis* is an Operation, which separates the Parts, which were united contrary to their natural Disposition.

*Exæresis* is an Operation, by which we extract extraneous Bodies out of any Part.

LASTLY, *Prosthesis* supplies some Organ, which is wanting for the Necessity, or the Perfection of a Body.

HOWEVER Synthesis, Diæresis, and Exæresis, almost always accompany each other in the Operations.

THE Operations of Surgery are divided into two Parts: the first is operative, and consists in the Address of the Surgeons Hands. The second is *theoretical* or *medical*, it regulates the Conduct of the Surgeon in the administration of Remedies, which are necessary to make its Operations succeed.

To operate well, it is necessary to have a perfect Knowledge of the Structure of the Parts, of their Situation, and their Uses; all which is understood by a Skill



Skill in Anatomy. The Disease, its Cause, its Rise, its Progress, its State, and other Circumstances must be known, to the End they may pass a Judgment on the Necessity of the Operation, and of the Remedies convenient for the Disease; Lastly, they ought to know perfectly well all the Rules of the Operations; which is obtain'd by seeing good Practitioners operate, by reading the Observations of Practitioners, and by making Trials alone.

BEFORE one performs an Operation, four Things are to be well observed.

THE first, what Operation it is; the second, why it is to be perform'd; the third, whether it be necessary, or possible; and the fourth, the manner of performing it.

As for the first Point, one knows the Operation by its Description. For the second, it is perform'd, because the Disease cannot be cur'd otherwise; for the third,

third, it will be judg'd possible and necessary by examining the Disease, and the Strength of the Diseased : For the fourth and last Point, it is the Art or Manner of performing each Operation.

OPERATIONS ought to be perform'd readily, gracefully, surely, and dextrously.

THREE Things ought to be propos'd before they perform an Operation, to wit, what is to be done before they begin; what, during the Operation, and what, after it is perform'd.





## CHAP. II.

### *Of Sutures in General.*

**S**UTURE is a Sort of Synthesis, which by the Means of a threaded Needle, reunites the soft Parts, whilst the Wound is fresh.

SUTURES are made to reunite Wounds; but they are made principally, because neither the Bandage, nor the Situation of the Part can compass the Reunion.

THE Difference of Sutures arises from two Things, to wit, from their Use, and the Manner of making them.

FROM their their Use, they are call'd Incarnative, Restrictive, and Conservative.



THE *Incarnative* is five-fold, the intersested, the quill'd, the twisted, the clasp'd, and the dry Stitch.

THE *Restrictive* is threefold, the Skinners, the Shoemakers, and the Tailors.

THE *Conservative*, draws the Lips of the Wounds together, where there is a loss of Substance ; but no Stitch is made when this Loss is great.

As to the manner of making these Sutures ; they are made with a Solution of Continuity, or without such a Solution ; where a Solution is made, 'tis done in a Part separated or continuous.

THOSE made in a continuous Part, are four.

THAT of the Skinner, or overcasting.

THAT of the Tailor, or lacing.

THAT

THAT of the Shoemaker, and that which goes from within outwards, and from without inwards.

THOSE which are made at a Point separated are four, to wit, the intersected, the quill'd or pegg'd, the twisted, and the clasp'd.

THAT which is made without Solution of Continuity, is the dry Stitch.

SUTURES are useless for transverse and oblique Wounds, where Bandage is not of use; they are used where Wounds have Angles; and lastly, as the Ancients have added, for Wounds that are attended with Hemorrhages; and here it was they practis'd the Suture call'd *Restrictive*.

IT must be observ'd, that Sutures are not us'd to Vessels, as the Ancients did, but there we make Ligatures. Sutures again, are convenient for Wounds, where there is Motion.

C

THERE

THERE are several Wounds, where Sutures are not practis'd.

*First*, To Wounds alter'd by the Air.

*Secondly*, To contus'd Wounds.

*Thirdly*, To Wounds where there is a Loss of Substance.

*Fourthly*, To venemous Bites.

*Fifthly*, To Wounds accompanied with Inflammation.

*Sixthly*, and *Lastly*, To Wounds where the Bones are bare.

THE Ancients forbid to stich Wounds at the bare Bone; however if a Wound is without Contusion, it must be stich'd immediately.

BE-



BEFORE making a Suture, you must extract all extraneous Bodies, and suffer the Wound to bleed moderately.

THE Apparatus proper to make Sutures with, are three, to wit, the Cannula, the Needle and the Thread.

THE Needles must be of different Sizes and Figures; some must be streight, others crooked: The streight shou'd be either flat, round, or angled; the crooked greater and smaller.

THE Thread ought rather to be made of Lint, than Silk, because this cuts and grows more easily loose than that.

THE Thread should be wax'd, and even may be doubled if occasion requires.

THE Cannula may be crooked, or streight, it must also be made with an Eye, to pass the Thread. The Head of the Needles must be channel'd to enchase

the Needle, to the end it may run more freely.

THE Surgeon must have ready his Compresses, Plasters, Bolsters, Bandages, Astringents, and all other Dressings fit for his Operation.

IF any considerable Inflammation follows the Suture, it must be slacken'd immediately, in order to remedy the Accidents, which attend it: And as soon as the Accidents cease, the Suture must be again drawn close, as at first.





## C H A P. III.

*Of Sutures in Particular, and the  
Manner of performing them.*

**T**HE Intersected is a Suture at a Point seperated, it is the most usual in Practice, we take a Needle, crooked or streight, as occasion serves, we pass it from without inwards, we cut the Thread of each Side long enough to have opportunity to tye it easy, we may make as many Stitches as are necessary. The Stitches being made, we begin at that in the Middle, making it on the Side opposite to the running out of the Matter, according to the Situation of the Part. We make a simple Knot immediately, upon which we apply a small Compress, then the Surgeon's Knot, and lastly a running Knot, in order to untie  
upon

upon Occasions, to wit, when Accidents supervene.

THE Distance of Stitches ought to be half an Inch from each other, according to the greatness of the Wound. If it be superficial, a Cannula is to be us'd; but if deep, the Fingers are most convenient.

THE Quill'd is the second Sort of incarnative Suture, it is useful in deep Wounds, which happen to very fleshy Parts, as to the Buttocks, Thighs, and to Parts which have Motion, such as the Belly. This Suture was much in use with the Ancients; but at present, we don't use it. We take two Quills, or two small Pegs, of the Length of the Wound, we pass a Needle threaded with a double Thread, to the very bottom, and we cut its Thread of a sufficient Length.

THE Pegs or Quills are plac'd among the Threads, in making a double Knot from one Part to the other upon the Quills, and

and making them approach to each other, as much as is necessary.

THE twisted Suture is the third Sort, it is hardly us'd, but in the Hare-Lips. It is made thrusting the Needle into the Wound, and twisting the Thread across, and around it.

THE Clasped is the fourth Sort of incarnative Suture; the Antients made it with Clasps, which they thrust from one Lip to the other, and they apply'd so many Clasps, as they pleas'd to make Stitches. This Manner of reuniting Wounds is useless, if not ridiculous, for two Reasons: The first is, because the Pain wou'd be continual; the second is, because these Clasps wou'd not penetrate to the bottom of the Wound, and by Consequence the reunion cou'd not be made.

THE dry Stitch is the fifth Sort, and the last of the incarnative Sutures. It is so call'd, because it is made without Division. It is not useful, but for superficial

cial Wounds, and particularly in Wounds of the Face, to preserve the Beauty of it: But is scarce in use, for we use Needles to the Face, as in all other Wounds; but to the End the Scar may appear less, they must be more fine.

WE take two Pieces of new Cloath, which we cut into a triangular Form, of the Size of the Wound. The Lift of the Cloth must be on the Side of the Angles; we make so many Angles, as we would make Stitches, and we fix a Tassel to each Angle; this Cloth is applied with an agglutinating Medicine, which the Ancients did usually with Mastick, Frankincense, Sarcocolla, powder'd and incorporated with the White of an Egg; but Glue holds much better than this Mixture. We must apply the Cloth at half a Fingers Distance from the Edges of the Wound, and let it dry before we offer to draw the Lips of the Wound together; we make a single Knot and a running one, as in other Sutures, and lastly, we apply a Bolster dipt in any Balsam over it.





## CHAP. IV.

*Of Restrictive Sutures.*

THE first of Sutures which re-  
stringe the Blood, is that of  
the *Skinner*; the Ancients pra-  
ctis'd it to the Vessels, as we  
have said above, we do not practise it at  
present, but to the Intestines; we take a  
Needle which is streight and small, threa-  
ded with raw and flat Silk, making the  
first Stitch beyond the Wound, piercing  
at the same Time the two Lips, and con-  
tinuing till it be sowed, we let one End  
of the Silk hang out of the Belly.

THE Tanner and Taylor's Suture, and  
that which is made from without in-  
wards, and from within outwards, are all  
useless and ridiculous: The multiplicity  
of Stitches, wou'd presently cut the Lips  
D of

of the Wound. All these Sutures are describ'd in the Ancients, particularly in *Celsus*; but we may believe, that they never made use of them, since they must have then found them inconvenient, and never recommended them to us.

THE Surgeon must observe many Particulars, before he cuts Wounds.

1. To take hold of the Lips of the Wound gently with his Fingers.

2. To avoid pricking any Vessel without Necessity.

3. To pierce both the Skin and Flesh.

4. IN deep Wounds, not only to take up the Surface, or the Skirts of them, but to go to the very Bottom, because it is the Bottom which recovers first; for there wou'd be a Cavity, if we did not go to the very Bottom of the Wound, which wou'd oblige us to undo the Stitches, of which great Care must be taken.

5. To

5. To make the Stitches at a convenient Distance from each other.

6. To begin at the Angles, if there be any, and to draw the Lips of the Wound together, before we make a Knot.

THE Ancients, after having made the Sutures, strew'd the Edges of the Wound with incarnative Pouders, to make it, according to their Notions, regenerate Flesh; but the reunion of Wounds is an Action from Nature, and their Pouders only serve to impede it, in making a Plaster, which stopp'd the Passage of the Blood, and hinder'd the Edges from recovering. There is in fine, no Balsam like Blood for the Regeneration of Flesh; it is the same as the Grafts to the Tree, the nutritive Juice to the Plant running thro' the small Tubes, which make up the Texture of it, it is the true Cause, why the Graft reunites at the Incision made on the Tree; it is also the same Thing for the Formation of the *Callus* of the Bones,

whose Substance is nothing but a Composition of small *Canals*, or Vessels,

UPON which Account, we may say, that the Antients had only a very confus'd *Idea* of the Generation of a *Callus*, when they said, that it was an Excrement of Flesh, or the Remainder of the Nourishment of the Bone, that made it.

IF there be Dexterity requir'd to make Sutures, there is less to undo them. We undo the intersected, in cutting every Stitch upon its Knot, and putting the Probe under it, and the Finger upon the Edge of the Wound to make sure Work, drawing the Thread without Violence.

WE take off the twisted Suture by untwisting gently the Thread, and drawing the Needle by little and little.

IF we have made use of the quill'd Suture, we must undo it by cutting each Stitch upon the Quill.

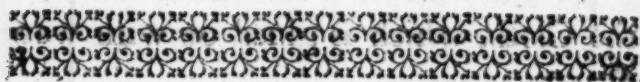
THE

THE dry Stitch is undone by moistning the Cloth, which is glued on with warm Water.

IF we are oblig'd to make use of the Skinner's Stitch to the Intestines, the Stitches rot and come away with the Matter; 'tis the same thing, as to the Ligation of the *Omentum*; we must take Care to draw the Threads away, which offer at the Orifice out of the Belly.

IN fine, it is the Surgeon's Duty to undo the Sutures, as soon as the Wound is reunited; which happens sooner, or later, according to the Place where the Wound is, and the good or bad Disposition of the Patient.





## CHAP. V.

*Of the Gastroraphia.*

THE *Gastroraphia*, or Suture of the Belly, is made, when the Wounds are large there: If the Wound be small, and not attended with bad Accidents, there is no Occasion for the Suture, we may only keep a small Tent in, that the Matter may have a free *Exit*. If the *Intestines* or *Epiploon* come out at the Wound, we must presently, before we replace them into the Belly, examin whether they are injur'd by an Inflammation, or Mortification; whether there be any Wound in the Intestine, and whether it be large, we must make the Skinner's Suture. The Omēntum, being a fat Part, is never expos'd much to the Air without a Mortification, which



which is evidently known by its livid Colour, and its Coldness; this dead Part must be cut off; we pass a Needle threaded with a double Thread into the sound Part, making two Knots at the two Sides; then we cut into the Quick an Inch above the Ligature, suffering a long End of the Thread to hang out of the Wound, we replace the Intestine first, and next the Omentum.

THE Wounds often penetrate the Belly, without hurting the Guts, and 'tis then, that they are fill'd with *Flatus*, in such a Manner, that they won't enter by the Wound again. Authors have already said, that there were only three Things to be done for dissipating the *Wind*, to wit, either Fomentations of warm Wine, or boiling Chamomile and Melilot Flowers, or applying live Animals split to the Part, *Paræus* also advises to make many Punctures into the Intestine with a round Needle, because it only divides the Fibres without cutting them; but the most sure Method is to use all our Endeavour to replace

place it, into the Belly; Nature it self will then dissipate the Wind. If all these Means are of no use, we must at last come to the Dilatation of the Wound.

BEFORE we dilate the Wound, we must observe three Things; the first, is the Place where we must dilate; the second, is the Largeness of the Dilatation; the third is, the Manner how it is to be done.

IF the Wound be above, we must dilate below; if it be transverse, cut from the *Linea alba*; it is not very easy always to know the Direction of the Wound, by reason of the Strangulation of the Intestine. The Largeness of the Dilatation depends upon the greater or less Part of the Gut, or Omentum, which are thrust out of the wounded Part.

THE third Thing shews us, how the Wound ought to be dilated, we put the Intestines gently in Order at the Sides, and put upon them a Compress dipt in  
warm

warm Wine, applying the Hand gently above, we endeavour to introduce a Probe, channell'd, into the Belly; we must introduce it perpendicularly, turning it from Side to Side, and take Care not to engage the Intestine between the Probe and the *Peritonæum*; and also it is good to draw it a little towards us; then, holding the Probe in the Left-hand, to take in the right a crooked Bistory, or Scissors, to slide the End into the Channel of the Probe, and cut more outwards than inwards; and lastly, reduce the Intestine and jolt the Sick a little.

It is not always easy to introduce the Probe, for the inflated Intestines, are an invincible Obstacle, and here it is, the Surgeon's Skill is requir'd; he puts one of his Fingers, where he would make the Dilatation, and as it is the Skin, that always occasions the Strangulation, he cuts it with the Point of the Bistory, in conducting it near his Nail, in such a Manner, that the Intestine is not at all touch'd. It is easy after that, to introduce

E

the

the Probe, and more commodiously to dilate, as we have already said. In all Affairs, which depend upon Dexterity of the Hands, it is much more easy to comprehend them by seeing than reading, and there is a great Difficulty in giving a lively and clear Description of those Affairs. The Intestine and the Omentum reduc'd, you then are to make the intersected Stitch.

THE Threads of the Stitch of the Intestines and *Omentum*, are drawn out of the Wound; and are rang'd on each Side of the Tents, to hang them by, and to agglutinate them with the Wound; and also if we cou'd order it so, that the Patient were plac'd upon his Belly, the Wound of the Intestine wou'd more readily reunite in growing to the *Peritonæum*.

To make the intersected Stitch in the Belly, we must have two crooked Needles, threaded with the same Thread; having mark'd the Stitches with Ink, we  
cause

cause an Assistant to hold his Hands on each Side of the Wound upon the Belly, to hinder the Impulse of the Intestines, and we cause the Patient to hold his Breath. We introduce the fore Finger into the Belly, making the Needle slip upon the Finger, for fear of hurting the Intestine; we hold the Edge of the Wound with the Thumb and fore Finger, we pierce from within outwards, piercing the *Peritonæum*, the Muscles, and the Skin altogether; and above all, we take Care to draw the *Peritonæum* to the Edge of the Wound before we pierce, to the End we may avoid a *Hernia Ventralis*, taking more from within than outwards. The first Needle being pass'd, we turn the same Finger in the inside, to take hold of the other Lip of the Wound, without drawing it out, conducting the Needle upon the Finger, as we did before. We must then take away the Needles, leaving the Thread, and make as many Stitches thus as are necessary. We begin to tie that of the middle first, and put a Tent in before we tie the Knots; the

Remainder of the *Apparatus* consists in an Embrocation with Oil of Roses, the Napkin, and the Scapular Bandage.

ALL Wounds which penetrate into the Belly, are always very dangerous when large, by Reason of the *Omentum* and Intestines promptness of escaping thro' the Aperture. The Respiration, and the Motion of the Muscles of the Belly, which continually press the Intestines, also force them to run thro' the Wound, even when it is not very large, because these Parts hanging loosely in the Belly, it is always easy for them to escape out at the Orifice; somewhat like this happens to Persons squeezing Past in their Hands, where we see it slip through the open of the Fingers, because it finds no Resistance, to hinder its escape. We must again remark, that the Intestines being hurt, they come more readily out at the Orifice of the Wound, because they don't then so easily fill with Wind.



THE *Omentum*, which is of a fatty Substance, is never long expos'd to the Air without being corrupted; the Reason is, because being compounded of little Bladders, in which the Fat is carried thither by the *Vasa adiposa* of *Malpighi*, the cold Air coagulates and fixes in a very short Space of Time this unctuous Substance, which being stopp'd in the Vessels, ferments, corrupts, and grows acid, which gives Room to the Salts to disentangle themselves, to become acrimonious and corrosive, to break and tear the Texture of the *Vesicles* which contain them; from whence happen also that livid Colour, and that stinking Smell, which we then feel, because it is a true Gangrene.

THE Intestines never issue out at the Wound, but they immediately fill with Wind, from being expos'd to the Air. Let us take a view of the Conjectures, why these *Flatus* are generated; the cold Air which environs the Intestines, curbs the

the Circulation of the Juices, which pass'd in those Canals, I mean in the Texture, which composes their Substance; from whence the Circulation is not only retarded, as I have observ'd, but also the Chyle and other Liquors, which are contain'd in the Intestines, such are the Bile and Pancreatick Juice. The Ferment also which ouzes thro' the Glands of the Intestines, and the Excrements themselves are not so liquid as they wou'd be by their natural Heat: Which is the Occasion of the Fermentation of these Contents, and of the Elevation of Vapours, which cannot pass off by the Pores of them, because that the Coldness of the Air, as we say, has almost shut them up; and this is the Reason, why hot Medicines, whose Particles are warm, volatile, spirituous, and penetrating, can disperse those Winds, in opening the Pores, and in rarifying their condens'd Particles, which held the Intestines stretch'd like a Foot-ball.

A Wound in the small Intestines is more dangerous, than that of the great ones;  
be-

because the small Tubes, which compose their Substance, are of a more close Texture; from whence it happens, that the Reunion is made with greater Difficulty. Moreover the Chyle, which they contain escaping into the Cavity of the Belly, is often the Cause of the sudden Death of the Patient.

THE nourishing Glisters, which the Ancients order'd for Wounds of the Intestines, are of no use, because we meet with few of the *vasa Lactea* in the large Intestines; and because the Valve of the *Colon* hinders the Liquor from passing into the small Guts. But when even we might suppose, that it did pass, is there not rather Room to believe, that not being attenuated enough, it could not pass by the Mouths of the *vasa Lactea*. The Example, which a modern Author brings, of Glisters made up of Spirit of Wine, and which fuddle, says he, more readily that Way, than by the Mouth, concludes nothing against us, since it is a spirituous Liquor, which heat Volatilises, and makes  
it

it pass immediately into the Fibres of the Intestines, and from thence into the Mass of Blood.

THE Wounds of the Intestines are not always mortal, as the Ancients believed. Those of the Liver, the Spleen, the Kidneys, the Bladder, the Heart, and the Lungs, don't usually occasion Death, but when there is some large Vessel wounded, and that renders them mortal.

We have heard of a Soldier, who passed his Excrements thro' a Wound, which he had received in one of the great Guts, for 12 *Years* together, and whose Orifice was so glued and cicatris'd with the Muscles and Teguments, that it was his *Anus*, thro' which the Fæces pass'd during Life. We find in Practitioners a great Number of Facts upon Wounds, penetrating the Belly and Breast, and in which have sometimes been found Parcels of the Substance of the Lungs and the Liver, where, however, the Patients have been perfectly cur'd, as you may see in the  
Cen-

Centuries of *Hildanus*, *Schenkius*, and others.

IT has been known, that a Person receiv'd a Wound in the Breast by a Sword, where a Portion of the Lobes of the Lungs was engag'd between the Ribs, and made a considerable Tumour, which was extirpated by a Ligature, and yet the Patient was cur'd in a very little Space of Time after.





## CHAP. VI.

*Of the Exomphalos.*

THE *Exomphalos*, is either taken for the Disease, or for the Operation. It is a Tumour of the Navel, occasion'd from Humors, or the Parts : That which is occasion'd by Humors, if from Water, 'tis call'd *Hydromphalos*; if from Wind, *Pneumat-omphalos*; that which is caus'd by the Parts, is either from the Intestines, or the *Omentum*, or both together; they take the Name from the more prevailing part; if it is the Intestine, we call it *Enter-omphalos*; if the Omentum *Epipl-omphalos*; if there are more of the Intestines engag'd, we call it *Enter-epi-pl-omphalos*; if it be a fleshy Substance, we call it *Sarc-omphalos*; if the Veins dilated be the



the Cause of it, is call'd *Varic-omphalos*; or *Cirf-omphalos*; if it be an Artery, 'tis call'd *Aucurismat-omphalos*; or *Iring-omphalos*.

THE *Exomphalos* made by the Parts, being engag'd, is often occasion'd by violent Exercise, which dilates the *Peritonæum*, or it may also proceed from an internal Cause, as from Humours watering and relaxing this Part, in such a Manner, that the Intestines, by the frequent Shocks, dilate the *Peritonæum*, and make a considerable Tumour.

THE *Peritonæum* has two Places, very subject to be dilated, to wit, the Navel, and Place where the Rings of the Muscles are, thro' which the spermatick Vessels pass.

AT the Navel, the external Coat separates it self from the internal, to wrap the umbilical Vessels into the same, at the Rings of the Muscles; so that the internal Membrane being no longer forti-

fied by the external, it is not in a Condition to resist the Shocks of the Intestines, and it is this, which makes Way so frequently for *Hernia's*.

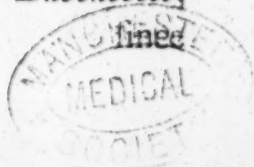
THIS Disease may be cur'd in the beginning by Bandage and Astringents. If the Tumour be large, and of a long standing in a Body of an ill Habit; we must not attempt the Operation at all.

WE must not perform it, but when the Tumour is of a moderate Size in a young Person, and where the Habit of the Body is good. There are in the Antients many Methods of performing this Operation; we will only describe one, which is now out of Use, for being too barbarous.

AFTER having made the Patient move himself in Order to perceive the Extent of the Tumour more easily, they mark'd with Ink its Circumference, and made the Patient lie upon their Backs: Then they reduc'd the Parts into the Belly; causing

sing a Servant to put his Hand upon the Tumour, and bidding the Patient to hold his Breath; then they pass'd into the Navel a threaded Needle, to make a Handle, which they gave to hold: To assure themselves, that the Parts were reduc'd, they made a small Incision at the Top of the Tumour, passing the Finger quite round, to see whether there were any Adherence. Then they pass'd two great Needles to the Bottom of the Tumour, like a *St. Andrew's Cross*; under the Needles, the running Knot, which they took Care to fasten every Day: At last the Tumour mortified, and an Eschar fell off, which made a great Loss of Substance. I know not, how they hinder'd the coming out of the Intestines. The Description of this Operation gives Horror, and we should be very Savage, if we attempted the Operation in this Manner.

THIS Operation is the same as that, which is perform'd in the *Bubonocoele*,



since it is a *Hernia*, which in every Circumstance is the same.

THERE are two Reasons which oblige us to perform this Operation. The first is, when there is a pressing Necessity, and the Parts won't return: The Second is, when the Tumour is moderate, and the Parts start out, and return easily in a young Person, and of a good Habit of Body; and that the Patient would be free from the Inconveniency of wearing a Truss all their Lives.

WE make the Patient lye down upon a Bed on their Backs, and endeavour to reduce the Parts, as we did in a Wound of the Belly; the Difference is only this, that here the Intestines and *Omentum*, are cover'd again by the Peritonæum and Teguments, whereas in the *Gastroraphia*, these Parts are bare.

THE Parts being reduc'd, the Surgeon on one Side, and the Assistant on the other, lifting the Skin on high, makes an  
In-

cision with a Bistory : The Dilatation of the Peritonæum being discover'd, we take some of it off, having cut it quite round, and the Remainder of the dilated Part comes away in Suppuration. We must also give the Ring some Stroaks with the Bistory, upon the channel'd Probe, as we did to the Wound of the Belly, in order to procure a strong Cicatrix, and to make the intersected Stitch, as in the *Gastroraphia*.





## CHAP. VII.

*Of the Paracentesis.*

THE *Paracentesis* is an Apertion of the Belly, or a Species of *Diarexis* reduced under the Puncture, for evacuating the Water from Hydropical Persons. It is deriv'd from the Greek Preposition  $\pi\alpha\rho\epsilon\iota$ , *juxta*, and the Noun Substantive  $\kappa\acute{\epsilon}\nu\tau\epsilon\sigma\iota\varsigma$ , *Stimulus*; as if one shou'd say,  $\tau\acute{o}\ \pi\alpha\rho\epsilon\iota\ \tau\acute{o}\ \gamma\alpha\sigma\tau\acute{\epsilon}\rho$   $\kappa\acute{\epsilon}\nu\tau\epsilon\sigma\iota\varsigma$ , a Puncture on the Belly.

The Differences of a Dropsy, are drawn from their Matter, their Place and their Causes. As to the Matter, the one is a Collection of Water, call'd an *Ascites*; another (of Wind, as the Ancients suppos'd, but as later Experience dictates) of  
Wa-



Water or Jelly in the Cells of the Omentum; and lastly, a third of Phlegm, call'd by the *Græcians*, *Leucophlegmatia* or *Anasarca*.

FROM the Place, the one occupies the whole Body, as the *Leucophlegmatia*, and the *Ascites* the Belly; the *Tympanites* generally accompanies the two others. As for the Causes of them, we will not undertake to discant upon, because we will hasten to the Manner of performing the Operation.

THE *Ascites* being known by the Signs in a Body of a good Habit, we may perform the Operation, altho' it rarely happens to succeed; which however, we shou'd not attempt till Remedies have been ineffectually try'd.

THERE are two Methods of performing the Operation with the Lancet, or the Trocar; as the Waters are almost always muddy, and often glairy, the Lancet makes a freer Passage than the Trocar,

car; but then we are not so much Masters of the Water, when 'tis done by the Lancet, as by the Trocar.

WE make the Patient sit in an Elbow Chair, to the End, that the Waters may run down; we pierce the Belly three or four Fingers below the Navel, at one Side of the *Linea alba*; if it is done with the Lancet, we fasten it with a Cloth wrapt around it; the Moment the Water flows out, we thrust the Lancet no further in, and before we withdraw it, we introduce a Probe, thro' which slip on a *Cannula*, and thrust it into the Cavity, letting the Waters flow according to the Strength of the Patient. Then the whole Secret is to stop the *Cannula* well with a Tent, and applying over it good *Compresses*, to hinder the Efflux of the Waters; for it often happens, that the Patient's dye by Reason of the great Quantity, whose *Exit* cou'd not be hindred; upon which Account it is, that now the *Trocar* is much preferr'd to the Lancet, because the Orifice shuts so exactly, there is no Room

Room to fear the running out of the Waters. Of late in our *Hospitals*, it is grown a Practice, to take off all the Waters at once, in such a Case 'tis not material, whether we use a Lancet, or a *Trocar*; for the Finger wou'd stop the Orifice of the Lancet, and hinder the flowing, as long as 'tis thought convenient. It never yet held good to evacuate great Quantities at once in morbid Bodies; nor can I, upon Inquiry, find many that have surviv'd this Practice; so that it may, without any *Reflection* be look'd on as no Invention, but an Error in Practice.

THIS Operation for the Cure of the *Ascites* is not new, since *Hippocrates* speaks of it in his *Book of internal Diseases*; and *Aristotle* in his *Book of the Generation of Animals*. Almost all the Ancients have practis'd it, except *Erisistratus*, who wou'd not suffer it to be practis'd. I have already said, that it rarely was successful; nevertheless they who are young, strong, robust, and with-

out a Fever, or who have long Intermifions, may sometimes recover; but for fuch as are of an ill Habit, and whose *Viscera* are chang'd by the *Acrimony* of the Waters, it is very difficult to escape this Deluge.

It happens sometimes, that the Waters are fhut up in a *Cystis* thicker than a *Parchment*, which forms a Bag, which feizes the whole *Abdomen*.

THE faline Parts of this Liquor, which is a true Brine, harden the *Viscera*, and *Peritoneum* very much, which we have often found *callous*, and we have open'd *Hydropicks*, where the Liver, Spleen, Kidneys and Mefentery, were very hard, and the Intestines much thicker than they were naturally.

THE *Scarifications* practis'd by *Asclepiades*, *Leonidas*, and *Hippocrates*, are of great Use, when the Water falls upon the Thighs and Legs; *Asclepiades* fpeaks thus, Surgery is more useful to Dropsies than

than Medicines, and we have seen *Scarifications* made at the internal Ankles, emptied almost all the Waters; we must scarify four Fingers above, of the Depth that we make in Bleeding; presently flows a little Blood, and then the Water which we see to ouſe, without the Danger of an Inflammation. Theſe *Incisions* don't reunite, till the Waters are all emptied, and the Body diminishes in Bulk in a ſmall Time. Theſe *Scarifications* are leſs dangerous, than the Puncture of the Belly; becauſe 'tis eaſier to ſtop the running of the Water in clapping on Cotton upon the Orifice, or in making proper Bandage. When we wou'd make the Waters flow, we muſt undo the Dreffing and bid the Patients walk, if they can; or we muſt jolt them a little to make the Waters move and flow more readily; *Leonidas* adds, that if the Evacuation from the Ankles be ſmall, we muſt ſcarify the *Scrotum*, the *Prepuce*, the Thighs, and above the *Articulations* of the Hands, to the End that all theſe  
ſmall

small Orifices may afford, in the main, a considerable Evacuation.

By this it is easy to perceive, that the Practice of our Fore-fathers was not distant from good Sense, and that there are abundance of Things, we now do, which we are highly oblig'd to them for.

THE most celebrated Practitioners of our Times have cur'd many Dropsies by the Means of these *Scarifications*, which however are not to be made, but when the Waters have descended into the lower Parts, and have fill'd them, to wit, the Thighs, *Scrotum*, and Legs; because we must not puncture, but where the Waters lodge; some commend *Cauteries*, but *Scarifications* are much more preferable. We must remember, that when the *Scrotum* is loaded with Waters, that the *Seton* is of great use.

THE Ancients did not make the Puncture of the Belly, without very great  
Pre-

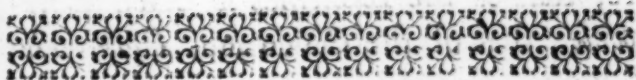


Precautions; they believ'd, that there were three Sources which furnished these Waters, and that sometimes they had but one evident. When it was the Liver, for Example, they made the Puncture on the opposite Side; or if it was the Spleen, they made it on the right Side: And when the Intestines were the Source, they wou'd have had it made in the middle; that Care shou'd be taken not to hurt the internal Parts, and that we were to have some Regard for the external. For my Part I understand not the ancient Scruples, since the Waters, that fill'd the Belly, sufficiently hinder us from touching the internal Parts; for there is often a Foot's depth. It is true, that in making the Puncture at the Bottom of the Belly, we might pierce the Bladder, and occasion the Patients Death: For this Reason it is, that *Hippocrates* advises not to touch the *Hypogastrium*, but with Discretion. As for the Difficulty, which the Ancients made concerning the external Parts, which we puncture; it is without Reason, as well as the Apprehension of  
not

not cutting the Fibres direct. The Orifice is made, observing the Bent of the Waters, a little on the Side of the Navel, and of late the *Trocar* was invented for this Operation. The Orifice made is so small, that it can hardly be perceiv'd, when the Instrument is drawn out: However, when the Waters are become glairy and coagulated, this Instrument must yield to the Lancet. This Operation is practis'd daily at our Hospitals, and I wish we cou'd hear, that it succeeded better; but since People have Recourse to it as the last Remedy, the *Viscera* are tainted, before they attempt it, and then it can only serve to prevent bursting.

If the Breast be afflicted with a Dropsy, the same Method may be follow'd, if the Lungs and the Parts contain'd be sound.





## CHAP. VIII.

*Of Hernia's.*

IPPOCRATES takes this Word *Hernia*, for every Tumour against Nature in the Belly; but particularly for a Tumour made by the Fall of the Intestine, or *Omentum*; there are but two Places in the Belly subject to *Hernia's*, to wit, the *Navel*, and the *Pubes*. These Tumours take the Name from the Parts, where they happen; that of the Navel is called *Exomphalos*; of the Groin, *Bubonocoele*, and *Enterocoele*, if it falls into the *Scrotum*; or complete *Hernia*, which is a Consequence of the *Bubonocoele*; Women are subject to *Bubonocoele's*, but not to complete *Hernia's*; I say then, that all *Hernia's* take

H

their

their Name from the Place where they are, that of the Intestines is call'd *Enterocoele*; that of the Omentum, *Epiplocele*; if both, 'tis call'd, *Enter-Epiplocele*; if Water, *Hydrocele*; if Wind, *Pneumatocele*; if Flesh, *Sarcocoele*; if the Vessels, *Cirsocele*, or *Varicocoele*.

THE Causes of *Hernia*'s, are internal and external; if from an internal Cause, 'tis caus'd by Humours, which relax the *Peritoneum*; but the most common Occasion is violent Exercise.

THE Operation of the *Bubonocoele* is, either of *Election* or *Necessity*. It is not common, that a Patient, whose Intestines or *Omentum* fall and easily return, seeks for the Operation, for a Bandage serves to keep it up very well, so that they can go about their usual Affairs, nay and sometimes the Truss cures it. 'Tis only then upon an absolute Necessity, that the Operation is to be perform'd; for Example, when the Intestine is so much inflated with Wind or harden'd Excrements (in which

which Case there is always an Inflammation in the Parts) that it cannot re-enter by the Ring, and that the Patients vomit their Excrements, we must endeavour to make the Intestine re-enter in handling the Tumour gently, to apply emollient *Cataplasms*, to place the Patient on his Back, with his Buttocks and Heels higher than his Head. If all this avails not, we must then attempt the Operation; however, if the Patient has been a long Time in such a Condition, that there is no Pain in the Tumor, that their Vomiting has ceas'd for some Time, and that, in touching the Tumour, the Impression of the Finger continues, as it wou'd do in PASTE; these wou'd be infallible Signs of a Gangreen of the Intestine, and then the Operation wou'd be useless.

THE Patient being plac'd on his Back, the Surgeon on one Side, and an Assistant on the other, take up the Skin, making an Incision to discover the *Peritonæum*; he tears the Membranes with a Fleam, or rather his Nails; we know we are at

the Intestine by the *brown Colour* and *Circular Fibres*, and that it *obeys easier* than the Purse of the *Scrotum*. It often happens that the Intestine adheres; this is the Reason, why it is better to leave some Pellicules of the *Peritoneum* sticking to the Gut, than to take 'em away; the Intestine being free and disengag'd, we must put it into such a Condition, that it may be thrust into the Cavity; but the Ring oftentimes is so straitned, that we cannot do this, till it is dilated.

To dilate the Ring, we introduce a channel'd Probe, as we said in a Wound of the Belly, doing it in such a Manner as not to engage the Intestine; but the Ring and Intestine are sometimes so close, that it is almost impossible to make the Probe enter; we must then take hold of the Intestine with the right Hand, and upon it gently glide the Fore-finger of the left; then take a Bistory in the right, and run it upon the Nail, making a small Scarification on the Ring, to facilitate the Entry of the Probe into the Cavity. We

run



run into the Channel of this Probe a Bistoury to cut the Ring, whose Extent is about the 6th Part of an Inch; if we pass beyond this, we cut a Branch of an Artery, which waters the *Aponeurosis* of this Muscle, which we must shun. The Dilatation is made by drawing to you the Instrument without cutting the Teguments, since it is the inner Part which makes the strangling; then we must return the Intestine, as we have said, and scarify the Ring all round, in Order to make a strong *Cicatrix*. We put into the Wound a Tent or Plug, dipt in the *Yolk* of an Egg, fill it with Dossils, and use Compresses and Bandages.

N. B. A late Practice is introduced in this Disease; Physick is given, and if the Intestine be replac'd, a *Cautstick* is laid upon the Ring of the Process, and then cur'd as an Ulcer; this *Cicatrix* being hard yeilds *no* more to the *Procidencia*.

We have said, that an *Enterocoele* was the Consequence of a *Bubonocoele*; we call it

it *Epiplocele*, when it is the *Omentum*, and *Enter-epiplo-cele* when the Intestine and *Omentum* are both engag'd.

THIS Operation is made, either by taking away the Testicle, or leaving it on: The first is call'd *Castration*; the other which leaves it, is perform'd two Ways, either by cutting the spermatick Vessels, or leaving them behind. But these Methods were only practis'd by the Ancients, and are now not in use.

THIS Operation of the *Enteroccele* differs in nothing almost from the Operation of the *Bubonoccele*, for we place the Patient in the same Situation, we make the Incision the whole Length of the *Scrotum* to discover the Dilatation, and we endeavour to replace the Parts into the Cavity of the *Abdomen*; but as it is always a Case of Necessity, when the Operation is perform'd, so in that Case, the Intestines can't be replac'd; so that we are oblig'd to dilate the Ring in the same Manner as has been said in the *Bubonoccele*,

*bonocele*, the Remainder of the Dilatation rots in Suppuration. In process of Time the Intestine often fastens to the Testicle; if we were necessitated to perform the Operation, in this Case we wou'd be oblig'd to castrate the Patient, in separating it from the Intestine. *Lastly*, When the Gut does not re-enter into the *Abdomen*, and in managing the Tumour, we perceive an Adhesion, it is a certain Sign, that it is fix'd to the Testicle; then it is the safest Way to *postpone* the Operation.

WE must never *Castrate*, without an absolute Necessity, that is, but where there is Danger of Death without it.

A *Sarcocoele*, and a mortified *Testicle*, obliges us to castrate; we make an Incision upon the *Scrotum*, to make the Testicle appear at the Orifice, we tie the Vessels and their *Integuments*, however, without tying them too strait, for fear of *Convulsions*, and we cut an Inch below the Ligature.

IT

It must be observ'd, that when the *Omentum* is fal'n into the *Scrotum*, as it often happens, we must not endeavour to replace it into the Belly, as the Ancients us'd to do, since it would be an useless Load; for in all old *Hernia*'s the *Omentum* is much more bulky, than in its natural State; for this Reason we ought to cut away all that Part of it, which is fal'n into the *Scrotum*, and make a Ligature as near the *Ring* as possible. If the Intestine, the Vessels, and *Omentum*, shou'd adhere together, it is better to leave some small Portion of the *Omentum* on the Intestine, than to venture to take it forcibly away; for this wou'd fall off in Suppuration.

It is necessary to observe, that to facilitate the *Reduction* of the Intestine fal'n into the *Scrotum*, or Groin, we must not neglect to apply emollient *Cataplasms* upon the Tumour, to give *Glisters* to the Patient, to endeavour to irritate the Intestines, to make him lie upon a Bed, to put

put a Pillow under his Buttocks; the Surgeon passing one of his Hands between the Thighs of the Patient, and with the other managing the Tumour gently, in endeavouring to dissolve the Fæces, in order to replace the *Intestine*. Dexterity in a Surgeon is the main Point in a Disease of this Consequence, where the Patient vomits up his Excrements, and *Death* so often puts an End to the Tragedy.





## CHAP. IX.

*Of the Hydrocele.*

WATER distending the *Scrotum*, is call'd an *Hydrocele*, or particular *Dropsy*, it is often the Consequence of an *Ascites*; it is almost always on both Sides; the more dangerous is that, which is within the proper Membrane of the *Testicle*, (call'd the *Albuginea*).

WHEN the Water is in a small Quantity, in a young Person, and that it is not occasion'd by an *Ascites*, the general and particular Remedies often cure it, such are *Purgatives*, *Astringents*, *Sponge* dipt in *Lime-water*, and Things of this Nature



ture. In short, when these Remedies fail, we must have recourse to the Operation.

THE Waters are emptied either with a *Lancet*, a *Seton*, a *Cautery*, or the *Trocar*. The *Cautery* is often the most useful, because it consumes the Waters; when we perform the Operation with *Cauteries*, we apply a Train of *Cautsticks* to the Part where we have a Mind to make the Incisions; we cut the Eschar with a *Lancet*, and we even may apply more, if Occasion be, without Fear of hurting the Parts, because the Water hinders their Activity; often in old *Hydrocele's* it is a *Cystis*, that contains the Waters, which obliges us to fill the Wound with Dossils, dress'd with such Medicines as will corrode this *Cystis*.

THE *Hydrocele* being on both Sides, we pass a *Seton* a-cross the *Scrotum*, very near the Root of the Yard, to the End the Water may run more easily.

THE *Lancet* is of use for small *Hydrocele*'s, and for Infants where the Water is to be drawn off all at once; for as to others, where the Water is in abundance, the Wound closes in an instant, by reason of the wrinkling of the *Scrotum*; in a Word, it is always safest to trust to the *Trocar*.

THE Signs of an *Hydrocele* are self-evident; the Water makes a considerable Thickness, the Wrinkles are effac'd, we feel a *Fluctuation* of Water. In putting the Hand on one Side, and a Candle on the other, there is a Transparency, thro' which you may see the Testicles in the middle of the Water, and the Weight is considerable.

THE *varicous Hernia*'s are call'd *Cirsocele*, or *Varicocele*; both which signify Vessels dilated and twisted: These Vessels are the *Spermaticks*, which are become *varicous*; these Diseases are not cured, but by *Castration*.

AN

AN *Excrecence* of Flesh in the Testicles, is call'd *Sarcocoele* ; they are sometimes without Pain, but often partake of the Nature of a *Cancer*, and are exquisitely painful. *Topicks* avail little against this Disease, nothing can make a perfect Cure, save the *Castration* ; however, this must never be attempted, but when Necessity requires it.

THE Ancients made a great many Operations on the *Penis*. They, who have read *Celsus*, may see a great many pleasant ones ; as to ring the Prepuce in young Boys, in Order to preserve their Voice ; to pierce the Glans of a Child when newly born, or otherwise to rectify the Orifice, when it is not in the middle.

THE *Circumcision* is an Operation described by the Ancients ; they drew the Skin of the Yard on high, they made a Ligature there, and then around the *Penis* they made an Incision, which they fill'd with Dossils to cicatrize it. It is  
easy

easy to perceive, that this was an artificial Prepuce, which they made; but as *Circumcision* is not now practis'd among *Christians*, we have said enough of it in this Place.

THE other small Operations, such as separating the Prepuce from the Glans in an Adhesion, or such as taking off *Warts* or *Shankers*, are too easy to be inserted.

THE Operations which are perform'd in Women, are the Extirpation of the Nymphæ, and of a Sarcosis, or Shankers, which are made by Incision or Ligature.

THERE is sometimes a Membrane at the Orifice of the *Vulva*, call'd *Hymen*; we make a *longitudinal* Incision, and we hinder it from reuniting. We have seen the Lips of the Neck of the Womb quite clos'd up; this Disease happens from the first Conformation, and often after Shankers. A discreet Surgeon needs no Directions in this Affair.



## CHAP. X.

*Of a Phimosis and Paraphimosis.*

THE Prepuce is subject to a *Phimosis*, and a *Paraphimosis*; the first is such a Straitness of the Prepuce, that the Glans cannot be made to appear; it is either natural, or it happens by Reason of an Inflammation, an Ulcer, or Shankers.

To perform the Operation of the *Phimosis*, the Surgeon draws the Extremity of the Prepuce towards him, an Assistant ought to draw the Skin at the Root of the *Penis*, to the End that the Incision be at the Bottom of the Glans; he introduces a small Instrument in the Shape of a Penknife, cutting the Skin to the *Root*, and then draws it back.

THE

THE *Paraphimosis* is a Disease opposite to the former, the Prepuce is so strongly turn'd behind the Glans, that it can't be drawn to cover it; and sometimes it happens, that the *Inflammation* and *Strangulation* are so great, that there is great Difficulty to make it return. We then apply astringent Medicines and cold Water; but if these Means proves useless, we must make Incisions all round, in Order to hinder the Stangulation, and then endeavour to reduce it.

THE Words are deriv'd from the *Greek*; to wit, from *φιμὸς*, *camus*, a *Bitt*; inasmuch as the Parts were bridled and curb'd.







## CHAP. XI.

*Of a Stone in the Urethra.*

SMALL Stone often glides into the *Urethra*, from the Bladder, it blocks up the Passage, when once it has enter'd it; we must endeavour to make it come forth by pressing the *Penis* with the Hands; or, if we can, by the Extremity of the Glans with a proper Instrument. There is no Danger in making an Incision at the Glans, if it can't pass. We take the *Penis* between our Thumb and Fore-finger, we we make an Incision upon the *Stone* at the Side of the *Raphe*, and we-  
K press

press with the Fingers, to make it come forth. It is necessary to observe, that we must, before we make the Incision, draw back the Skin of the *Penis*, as high as we can, to the End that this Skin may cover the Orifice, when 'tis drawn over again.





## CHAP. XII.

## Of Lithotomy.



HERE are many Signs of a *Stone in the Bladder*, the Patients feel a sharp Pain there, because the *Stone* presses upon the Fibres. The Urine is made Drop by Drop, which we call a *Strangury*; and in making it, there is often a full stop put to it, because the *Stone* blocks up the Passage from Time to Time; and often the Urine is bloody.

THE *Inflammation of the Bladder*, extends it self always so far as the Glans, because of the Continuity of the *Bladder*, the *Urethra*, and It.

IN Persons troubled with the *Gravel*, the Urine is whitish, because there is some of it which always remains in the *Bladder*, and which cannot all be emptied, by Reason of the *Stone* : We see that this Urine if it stand a little Time, ferments, and becomes stinking.

THE *Priapism*, or *Involuntary Erection of the Penis*, is caus'd by the *Inflammation of the Bladder*, which communicates it self to the Yard. The Itching of the *Glands* proceeds from the *Acrimony* of the Urine, and it is this *Itching* which makes the Patients always hold their Hands there; all these Signs are sometimes equivocal, and sometimes univocal; tho' Diseases of the *Bladder*, often have the same Signs, wherefore the *Catheter* is the surest *Informer*.

THE *Stone* may cling to the Bottom of the *Bladder*, without much incommoding the Patient, and thus Persons may live free from Pain, and all the fatiguing Symptoms

toms of it. *Van Helmont* says, that he knew a Priest, who endeavouring to reach a Book in his Study, felt all on a sudden a Weight in his *Bladder*, after which he had all the *Symptoms* of a *Stone*, which oblig'd him to have Recourse to the Operation.

To search whether a Patient is troubled with the *Stone*, we take hold of the *Penis* with the left Hand, and press the Passage a little, then with the right Hand we introduce the *Catheter*, the End of which must be on the Inside; and its convex Part towards the Belly; whilst we pass it up gently we must draw the *Penis* upwards, to the End we may make the Passage streighter, and turn the Hand and the End of the *Catheter* towards the Belly, to make it enter into the Bladder under the *Os Pubis*, then draw back the *Stilet* of the *Catheter* to give Passage for the Urine.

THERE is another Method of Probing; we turn the *Penis* and the two Ends of the  
Ca-

*Catheter* towards the Belly, and its convex Part downwards, to introduce it directly into the *Bladder*, without giving any Turn to the *Catheter*. This Method is much easier than the former, and the Patient may search himself. The Resistance the *Stone* makes to the *Catheter*, is an evident Sign of a *Stone*.

THE Patient being in a convenient Posture, laid upon his Back on a Couch, or upon a Table made for this use, his Thighs and Legs bent and separated by Assistants and Ligatures, we introduce a *Catheter*, which is channel'd, into the *Bladder*, an Assistant holds the *Catheter*, and the Patient's *Cods* up towards his Belly, and we do it in such a Manner, that the Convex Part of the *Catheter* pushes the *Perineum* outwards.

THE Surgeon, putting two Fingers of the left Hand at the Side of the *Catheter*, makes a sufficient Incision upon the *Gutter*, on the *Raphe*, with a streight *Bistoury*,



ry, large enough, cutting on both Sides ; some put the Nail of the Fore-finger into the *Gutter* of the *Catheter*, or else before they withdraw the *Bistoury*, they glide above it an *Introducer*, and then withdrawing the *Catheter*, we thrust in crooked or streight *Forceps*, upon the Hollow of the *Introducer*, we find the *Stone*, and catch hold of it with the *Forceps*, and draw it from Side to Side, in Order to extract it.

WE introduce a *Scoop* into the *Bladder*, in order to draw forth the Grumes of Blood, and also some Shivers of the *Stone*; it is not necessary to put a *Cannula* into the Wound.

WE dress the Wound with *Pledgets*, a *Plaster*, and proper *Bandages*; we bind the Thighs of the Patient close with the *Garter* : This Operation requires Practice, which is best seen in the *Hospitals*, where they make it their daily Exercise.

OF late, *Peter Franco's* Method is introduc'd, with some little Variety of Circumstances by Mr. *John Douglass*, a *Scotch Surgeon*, and is now practis'd in our Hospitals, but 'tis said, with little Success; they inject warm *Barley-water* into the *Bladder*, so as to fill it full; then they make an Incision on the Side of the *Linea alba* large enough, and pierce the *Bladder* as near the Adhesion of it, to the *Os Pubis* as possible, and extract the *Stone* thro' this *Aperture*; and then they Cure the Wound as usual. It has not succeeded too well yet, and is in no fair Way to be advanc'd into common Practice; we must then wait.

WOMEN are subject to a Suppression of Urine, and to the Stone, but seldomer than Men, by Reason of the Urine's shorter stay in the *Bladder*; it is easier, and oftener voided than in Men, by Reason of the Situation of the *Bladder*, the Largeness of the *Urethra*, the small Distance from its *Exit*, and its *Direction*.

To

To search Women, or cause them to urinate, we must put the Patient in the same Posture as we have said above, concerning the Men, and with the left Hand open the *Nymphæ*, to discover the *Urethra*, which is above them, we introduce at the same Time with the Right, a *Catheter*.

THE *Catheter* for Women is a little crooked at the End; we draw out the *Stilet* to let the Urine flow, we introduce a *Dilator* into the *Bladder* in Order to thrust in the *Forceps*; *Lastly*, we search for the *Stone* and take hold of it, as we have said; if it be too large, we give a small Snip to the *Urethra* to facilitate its Extraction.





## CHAP. XIII.

*Of the Fistula in Ano.*

**FISTULA** in general, is a deep and cavernous Ulcer, having a Hardness on the Inside, which affords *Pus*. The Differences of *Fistula's* are taken from the Parts, where they are seated, from their Figure, and Accidents which accompany them; some are in the Flesh, others reach to the Bones, the Veins, Arteries, or the Nerves; some are streight, and others *oblique*, with many *Sinus's*.

THE Cause of *Fistula's*, is always a *sinuous Ulcer*; for every one knows, that every

every *Fistula* is preceeded by a purulent Matter, which proceeds from a cavernous Ulcer. The *Sanies* which runs from old Ulcers, is acrimonious, sharp, and like unto Brine. We generally observe, that whenever any of the Parts are a long while soak'd in an acrimonious Matter, for Example, in an *Ascites*, we see such an Ulcer becomes hard and callous; from whence it may be said, that acrimonious Matter is the true Cause of the *Callosity* of *Fistula's*.

THE *Diagnostick* Signs of *Fistula's* are drawn either from their *Sinus's*, or Accidents, which succeed. When a *Fistula* is in the fleshy Parts, the Matter which runs is gross, viscous, and muddy. When it is among the tendinous and nervous Parts, the Matter is *serous* and attended with very violent Pain. If the Matter resemble the *Lees* of *Wine*, 'tis a Sign of the *Fistula's* being near the *Blood-Vessels*: If on the contrary, the Matter be clear and thin, it is a certain Sign of its being at the Bone. Upon this,

I shall mention *Hippocrates's* Sentiments, who says, that if *Fistula's* are near the Bone, for near a Year together, it is odds but the Bones are alter'd or carious.

FOR the *Prognostick* of *Fistula's*, we may say, that recent simple ones, and such as are seated in the fleshy Parts, and in a young Body are easy to be cur'd; But on the other Hand inveterate *Fistula's*, in *Cacochymical Bodies*, and near the principal Parts, which reach to the *Tendons*, the *Bones*, the *Arteries*, the *Vertebrae*, the *Thorax*, the *Abdomen*, the *Bladder*, the *Intestines*, the *Breasts*, the *Armpits*, or the *Groins*, are certainly difficult to be cur'd.

THE Cure of *Fistula's* is Palliative, or Eradicative. *Palliative*, as to those old *Fistula's*, which are near the principal Parts and in Places, where we can neither apply *Medicines*, nor *Cauteries*: This Cure then consists in evacuating the Humours, in observing a proper and convenient *Diet*, in *Bleeding* from Time to  
Time



Time, whether in the *Arm*, or in the *Hæmorrhoidal Veins*. The *Eradicative Cure*, is such as takes away the *Callosity*; it is made by acrimonious *Medicines*, such as *Tochisci vigonis*, thrust in; but the surest is an actual *Cantery*. We shall at present confine our selves to a *Fistula in Ano*.

A *Fistula in Ano*, has always many *Sinus's*, which make a *Sac*. These *Fistula's* have sometimes two Orifices, the one opens into the Intestine, and the other on the outside of the *Anus*. There are some which have but one; they are call'd internal, when they open into the Intestine.

THESE *Fistula's* are known by the Pain, and the Matter which comes forth with the *Excrements*, or else by the Help of a Probe; they are more difficult to be discovered, when they pierce the Intestine. The Orifice is sometimes so high, that we have a Difficulty to find it with our Fore-finger thrust into the *Anus*, turning it round the Intestine. We feel often a  
small

small Inequality, and that is properly the Orifice of the *Fistula*; for the Orifice of all *Fistula's* is unequal, in the Shape of a little *Caruncle*.

THERE are *Fistula's* which reach to the *Bladder*, or the *Os coccygis*, or to the *Os ilij*, in Bodies of an ill Habit; but the Operation is of no Effect in such *Fistula's*.

THE *Fistula's* in *Ano* are of four Sorts, the one is call'd, *The internal blind Fistula*; another the *external blind one*; a third, the *complete Fistula*; the fourth, *The Coney-burrow*.

*The blind internal Fistula*, is open on the outside, and has no Orifice into the *Rectum*.

THE *blind External*, is open towards the Intestine, and that on the outside.

THE *Complete*, is open towards the *Anus*, and into the Intestine also.

*The*

*The Coney-burrow*, has many *Sinus's*.

THE Patient being laid with his Belly upon the Edge of a Bed, with his Legs far asunder, the Surgeon, after finding the Nature of the *Fistula*, has no more to do but to fall to the Operation.

THE Manner of performing this Operation is always the same, we must open the *Sinus* to the Bottom of the *Fistula*. For Example, in the *blind external* one, we pass a Probe into the Intestine, endeavouring to find out the Orifice; the Probe being within, we push it gently to the Bottom: We apply the Fingers about the *Anus* to feel the End of it; but the Matter is often diffus'd so deep into the Flesh, that it is hard to feel the Probe; upon which Account we must make a small Incision upon the *Teguments*, at the Part where the Probe is, which we push thro' the Orifice, to make a Sort of Handle of, and we cut with the *Scissors*, all that this Handle contains.

THE

THE *blind Internal* is open outwardly; for which Reason it is more easy to introduce a Probe into it, and often the Matter has almost worn out the Intestine. We pass our Finger into the *Anus*, we push the Probe upon the Finger to pierce the Intestine, and then we draw it back to make a Handle of, and cut as is said above.

THIS Operation may be perform'd with an *Instrument* in the Shape of a *Bistoury*, whose End is like a Probe; we pass it into the Orifice of the *Fistula*, and drawing it towards us, we cut it to the Bottom.

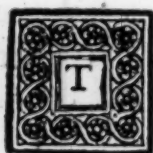
WHEN we use such an *Instrument*, the Operation is sooner done, and the Patient suffers not near so much; for with the Scissors it is not easy to cut all of it at once. Having discover'd the Bottom of the *Fistula*, we must always cut the Adhæsions; but first we must feel with the Finger, that there be no *Artery* or *Vein*, for the *Artery* is what we must avoid; the Pulsation discovers it.

THE

THE Ancients said, that we were not to perform the Operation in *Fistula's*, which pass'd beyond the *Sphincter* of the *Anus*, least we shou'd occasion an involuntary Efflux of the *Fæces*; we in this Age are not so scrupulous, we daily attempt the Operation of *Fistula's*, which pass beyond it, without any ill Consequence, because Fibres closing themselves at the Point of the *Cicatrix*, don't lose their Spring, nor their Action, or Function of opening and shutting. However, if the *Suppuration* were tedious, and there shou'd be a considerable Efflux; then indeed, there wou'd be Danger of a constant involuntary Flux of them. We put into the Bottom of the Wound *Dossils* with Strings ty'd to them, we fill it with *Pledgits* dipt in *Balsamicks*, and cover with a *Plaster*, *Compresses*, and the *T Bandage*.



## CHAP. XIV.

Of the *Empyema*.

HIS Word is taken, either for the Disease, or the Operation; it is us'd in *Hippocrates*, for a Collection of Matter in any Place whatever, and indeed it denotes no more than  $\pi\acute{o}\nu\epsilon\varsigma$ , or *Matter* in some Place, to be determined by the succeeding Word.

By an *Empyema* then, we understand a Collection of Matter in the *Capacity* of the *Thorax*.

THE Signs of Matter distending the *Thorax* are a Weight upon the *Diaphragm*, and a *Fluctuation* of *Matter*.

THE



THE Signs which demonstrate, that this Disease is fix'd on the Lungs, are a Weight, a fix'd and dull Pain, with a Difficulty of Breathing.

IF the Wound penetrate into the Breast, we know it by the Probe, and the Noise the Air makes in coming out at it; and if the Lungs are prejudic'd, the Air comes forth at the Wound, but with less Noise, and the Patient spits Blood. An \* *Emphysema*, which is a bloated *Swelling* quite round the Part, often happens to Wounds in the Breast. This Symptom is like what is customary with *Butchers*, who blow up their *Meat* to make it appear well.

ALL the World knows, that Inspiration is the Entry of the Air into the Lungs; and Expiration its Passage out again; and

---

\* From ἐξ, and φυσάω, or φυσίω, *influx*, to blow in.

that Respiration includes both. When it enters the Lungs, the *Thorax* enlarges by the Action of the *Musculi intercostales* and *Diaphragm*; and when the Air returns in Expiration, it descends and grows less; which happens from the Spring of the *Cartilages* of the *Ribs* and *Sternum*, and also by the *Weight* of the *Thorax* it self.

IN Inspiration the *Diameter* of the Breast enlarging, there is a Necessity that the Air should enter by the Nose and Mouth, which at the Top of the *Larynx*, make but one common *Duct*; and when it returns, it must pass out again by the *Compression* the *Lungs* receive, as well from the *Breast* as the *Spring* of the *Vesiculae* which compose it. Thus is it easy to comprehend, that the *Breast* represents a Pair of *Bellows*; the *Ribs* are the *Boards*; the *Capacity*, the *Hollow* on the Inside; the *Mouth* and *Nostrils*, the *Nose* of them; the *Epiglottis*, the *Flap*; and lastly, the *Muscles* do the Office of the *Hanas*, which open and shut the *Bellows*.

WHEN

WHEN the *Intercostal Muscles* act, the Breast enlarges, as we have said; and when this Action ceases, it returns to its ordinary State: In like Manner also, when we draw the *Wings* of the *Bellows* up; the Air, which is all round, being compress'd by the opening of them, makes a Circle and fills it up, that is, it runs to that Place where there is least Resistance; but when we cease to act, the *Wings* of the *Bellows* fall by their proper Weight, and thrust out the *Air*; and this is a succinct *Idea* of *Respiration*.

WE have said, that the Probe was the most certain Sign we had, for the Discovery of a penetrating Wound in the Breast, and that when the *Lungs* were hurt, the Air comes out at the Orifice; but if we wou'd reflect a little on what happens in *Respiration*, we shall find that in penetrating Wounds, the Air ought always to come forth at the Orifice, when the *Thorax* contracts it self, and enter it, when it dilates: And also  
the

the Noise which the Air makes in coming out at the Orifice, confirms us in our Assertion.

WHEN the Wound penetrates into the very Lungs, the Blood which issues forth is frothy, and the Air makes not so great a Noise.

WE must observe again, that when the Breast is wounded on both Sides, we must always dress the Wounds, the one after the other; and it is a *Maxim* which must be strictly follow'd; because, if we should leave them both open at one and the same Time, the Patient must run the Risque of *Suffocation*; and the Reason is very evident, if we consider that no Air enters by the Mouth, and that whatever does enter by the Breast, must pass by the Orifices on each Side, and so compress the Lungs, and hinder the Breast to play.

To search a Wound, and know its Direction, we must place the Patient in the *Posture* he was in when he receiv'd the Wound,

Wound, and observe the same Rule in Order to make the *Matter* flow out; *Lastly*, to evacuate the *Blood* or *Matter*, we must have recourse to the Operation.

THE Place of the *Operation* is either of Necessity or Election; the Place of Necessity, is where the *Matter* presents it self; the Place of Election is usually between the second and third true Rib, counting from below upwards, four Fingers from the lower Angle of the *O-moplata*, or *Scapula*, and four Fingers from the *Spina Dorsi*; if the Patient has been subject to a *Pleurisy*, we must make the Orifice a little higher, for fear of wounding the *Diaphragm*, which may have adher'd to the *Ribs* of the Patient. We cause an Assistant to hold the Patient, plac'd upon a Bed, the Place being mark'd, we take up the Skin and cut it across with a *Bistory*, we make a *longitudinal Incision* of the *Teguments*, and we cut the Fibres of the great *dorsal Muscle* transversly, for fear it shou'd make an Obstacle at the Orifice, which we are to  
make

make in the *Intercostals* ; we pierce the *Pleura* in conducting the Point of the *Bistoury* with our Fore-finger ; if it be *Blood*, we must draw off a good deal ; but if it be *Matter*, less. The Ancients have always commanded to avoid the *intercostal* Vessels, which are within the Fissure of the inferior Part of the Rib ; altho' these Vessels are scarce seen, but at the upper Side of the Ribs ; for a little after they are lost in the *intercostal Muscles*, and even when we do cut them, the Inconvenience is not very great, because these Vessels are not so large, as to make us apprehend any great Effusion of *Blood*, since they can't afford much.

THE Orifice being made, we pass our Finger into the Breast, and we turn it all round, in Order to disentangle the *Adhesions*, if there be any, to the End the *Matter* may flow out easily. After having drawn enough, we put a *Sponge-Tent* in, to which a *Thread* is ty'd, we dress up with *Dossils*, and apply over all a  
Pla-



*Plaster, Compresses, the Napkin and Scapular.*

IF the *Matter* should grow thick, we must make *Injections*, with Discretion, into the Cavity. We know that the *Abscess* which is form'd in the *Pleura*, is emptied, and that the *Matter* is fal'n into the *Cavity* of the *Thorax*, when the *Fever*, the *Pain*, and all the other *Symptoms* begin afresh ; and moreover we hear a *Fluctuation*, as we have already said.





## CHAP. XV.

## Of a Cancer.

**T**HE Cancer is a hard and painful *Tumour*, of a livid and leaden Colour, which usually attacks the exterior *Glands*, and corrodes the *Membranes* and *Flesh*. They who feed upon spirituous *Aliments*, are more subject to it than others; as Women to whom it often happens in their Breasts. This Disease is so much the more troublesome, as its Cure is the most difficult of all *Tumours*; some however have been cur'd by the *Extirpation* of the Breast; but altho' it be rarely cur'd, we shall give you the Manner of performing the Operation.

WE pass a threaded Needle a-cross the Breast, to make a *Handle* of; then drawing the Breast up by this Handle, and with a very sharp Knife we cut quite round close to the Ribs; then we press the Parts so cut with our Hands, to make the *Blood*, which has been coagulated there, to flow forth, you tie the *Vessels*; and dress with *Astringents*, and *Oil of Turpentine*, over which you lay *Compresses*, the *Napkin*, and *Scapular*.





## CHAP. XVI.

Of the *Aneurism*.

**A**N *Aneurism* is a Division of the *Artery*; it is made by *Ruption* and *Dilatation*; wherefore there are two Sorts of *Aneurism*'s, to wit, a true and a false one. The true, is when the Membrane is cut, and that the *Interior* comes out at the *Orifice*, dilating it self insensibly by the Impulse of the *Blood*, from whence a *Sac* is form'd, which increaseth in such *Proportions*, as the *Blood* engages it self in it.

THE spurious *Aneurism*, is when the *Artery* being quite open, the *Blood* escapes

capas among the Muscles and Teguments, and makes a *Tumour*, which is often hard; These two Sorts of *Aneurisms* may be cur'd in the Beginning with *Astringents* and *Bandage*.

THE Causes of the *Aneurism* by Dilatation are internal and external; the internal arises from the Impulse of the *Blood*, which beating against the Walls of the *Artery*, dilates the *Membrane* into the Shape of a *Pouch*, as we have said, because it is more thin in that Place.

THE external Cause happens from a *Fall*, which has weakned the *Artery*, or else by its opening, when we bleed.

WE know a true *Aneurism* by its *Pulsation*, and its *Softness*: In pressing the *Tumour* the *Blood* re-enters the *Artery*, and as soon as we withdraw the Finger, the *Blood* fills up the Part as at first; the the Colour of the Skin is hardly chang'd.

THE

THE spurious *Aneurism* has quite contrary Signs, which are *Hardness* and *Firmness*; the Skin is livid, and there is no *Pulsation*.

WHEN a Surgeon perceives, that an *Artery* is open'd instead of a *Vein*, he must let the *Blood* run to a good Quantity in Order to prevent an *Inflammation*, and too great an *Agitation*; then enclose a *Farthing* in a *Compress*, and apply it over the Orifice, or otherwise a great many small *pyramidal Compresses* of different Sizes, in Order to compress the *Artery* and take care not to tye the *Ligature* too strait. We don't perform the Operation in large *Aneurisms*, such as those at the Armpits, or the Belly, we content our selves with *Astringents* in such Cases; we shall here insert the Manner of performing it in the Arm.

THE Patient being in a proper Situation, the Assistant takes hold of the *Artery*, the surest Way is to use the *Torniket*.



*ket.* We open the *Tumour* with a *Lancet*, like an Abscess, beginning at the Bottom and ending at the Top; The *Tumour* being open, we discharge the *Blood*, we separate the Nerve from the Artery, we pass under the Artery a crooked Needle, threaded with a double *Thread* wax'd, we cut the *Thread* long enough, and we make two *Ligatures* (one below the *Tumour*, the other above,) because the lateral *Branches* always afford *Blood*. Some cut the Artery between the two *Ligatures*, but it is safer not to do it, for the Security of the *Ligatures*, we dress the Wound with *Dossils*, a *Plaster*, *Compresses*, and Bandage.



C H A P.<sup>r</sup> XVII.*Of the Trepan and Fractures of the Skull.*

IN Wounds of the *Head*, three Parts may be prejudic'd; the *Cranium*, the *Dura Mater*, and the *Substance* of the Brain.

THE *Cranium* may be fractur'd two Ways, by *Incision* and *Contusion*.

*Hippocrates* makes five Sorts of *Fractures*, a *Fissure*, a *Contusion*, an *Incision*, a *Depression*, and a *Contra-fissure*.

*Guido* reduces them to two Sorts, proper and common, which are drawn from the Nature of the Wound, its *Size*, its *Shape*,

*Shape*, and its *Situation*. They happen also in different Places of the *Cranium*, either in the first Table, or the second, or both. They are streight, oblique, simple, and Compound. The proper are a *Contusion*, *Depression*, and *Incision*, which last is of three Sorts, to wit, † *Encope*, \* *Diacope*, and [\*] *Aposkeparmismos*.

*Encope* (Ευκοπή) is an Incision, which divides the Bone without carrying off any Part of it, but only leaving a Mark; *Hippocrates* calls it *Hedra* (ἡδρα) the *Latins* *Vestigium*, or *Sedes*, a Mark or Seat. *Diacope* (Διακοπή) is a deep Incision which cuts the Bone, without cutting off the Piece. Lastly, *Aposkeparmismos*, (Ἀπόσκεπαρισμός) is an Incision, which carries off a Piece of the Bone, 'tis call'd in *Latin*, *Dedolatio*.

---

† ΕΥΚΟΠΗ } both a κόπω, *Scindo*, to cut.  
\* ΔΙΑΚΟΠΗ }

[\*] ΑΠΔ Ε σκέπαρον, *Ascia*, a Hatchet.

A sharp Instrument then cannot hurt the Brain, but in the following Manners; perpendicularly without carrying off the Piece, and only leaving a Mark behind; *obliquely*, the Incision dividing the Bone without the Piece off, and parallel to the Head, the Incision carrying off a Piece of Bone. We owe the Greek Expressions to the first Master's of the Art of *Physick*.

*Fractures* made by *Instruments* contusing the Bone, are much more perplex'd than the first.

A Contusion is twofold; the first does not destroy the Continuity of the Bone, we name it \* *Thlasís* (Θλάσις) it is a Depression of the Bone, without its being split; this Species of *Fracture* happens to *Children*, nevertheless it is difficult for a Bone to be depress'd without a *Fissure*.

---

\* Α θλάω *tunde*.

This Depression is like to what happens to a *Tin-Pot*; we sometimes observe, that it rises of it self, by the Spring, the Bone has.

A Contusion which destroys the *Continuity* of the Bone is twofold: In the first, the Bones continue equal and contiguous; it is but a simple *Fissure*, call'd \* *Rogme* (ῥωγμή) it reaches further than the Instrument that made it. When the Fissure is apparent, it is call'd *Rogme*; but if it is occult, 'tis call'd † *Trichismos* (τριχισμός) or a *capillary* Fissure.

ALL these Fractures happen either to the Part receiving the Blow, or to its opposite Side; which is then call'd § *Apoche-  
ma* (ἀπόχημα,) *Resonatio* in *Latin*.

A *Contra-fissure* is an imaginary Thing; it was far from being espous'd by all the

\* Α ῥήγνυμι *frango*.

† Α θρίξ, τριχός, *capillus*.

§ Αβ από, ὁ ἦχος, *sonus*.

Ancients; *Galen* in his Book of the Use of the Parts, jests with it, in the Example of the *Pot and Bell*, which *Physicians* had made use of to explain it. The *Cranium* being made of several distinct Bones, hinders a Fracture from being communicated from one Bone to another; because the Violence of the Stroke is deadened at the next *Suture*, which would not happen if it were all of one Piece; so that there is room to conclude, that all the Reasons they brought on this Head, are false and contrary to the Laws of Mechanicks.

THAT *Contusion* which takes away the Equality and Contiguity of the Bone, is call'd § *Entblasis* (ἐνθλασις) or \* *Esphlasis* (ἐσφλασις) that is a Depression or Fracture with a *Splint*. Which is divided into three Sorts, to wit, [\*] *Ecpiesma*

---

\* *Ab ἐν τῷ θλάω, tundo.*

§ *Ab εἰς τὸ φλάω, contundo.*

[\*] *Ab ἐκ τῷ πιέζω premo.*



(Ἐπίεσμα) is a Depression of the Skull, where the *Splints* press upon the *dura mater*; § *Angisoma* (Ἀγγίσωμα,) is a Depression where a *Splint* separated passes under the Sound, near the Body of the Brain. \* *Camaroſis* (καμάρωσις) a *Vault*, is the third Sort of Depression, of which there are five Kinds.

IN the first, one Part of the Bone whilst it is disunited, dips, and the other rises.

IN the second, the Bone dips, and is depressed without any Fissure.

IN the third, there is a deep Inclosure, where the Edges are bent downwards, and the Middle is elevated.

IN the fourth, the Bone, as we have said, rises of it self.

§ Ἀγγίσωμα ἢ σῶμα, *corpus*.

\* Ἀκαμάρα, *Camera*.

IN

IN the fifth, the second *Table* of the Bone is depress'd, and the first rises again.

WHEN the *Sutures* are separated, they make a Kind of Fracture, which *Hippocrates* calls \* *Diastema* ( διαστημα ) in *Latin*, *Intervallum*, but it is rather a Separation, than a Fracture, and seldom happens.

THE *Dura Mater* may suffer many Ways; first by a *Tension*, caus'd by an Orifice made in, or a Separation of the *Cranium*; it may be prick'd or lacerated by *Splints* of a *Bone*, or else compress'd by *Blood* extravas'd, the which corrupting causes an *Inflammation*.

THE *Brain* may be hurt by a *Commotion* or *Concussion* of all its Substance. We may judge of a Fracture by the Violence

---

\* *A διασπασμα*, Sto.

of the Stroak, and by the *Instrument*. If there be a Wound there, we judge of it easily by the Eye and the Touch. Sometimes the Fracture is so small, that it does not appear. The *Ancients* advis'd us to put *Ink* upon it, and to cleanse it, in Order to see if it penetrates; for my Part I can't see the Use of this Advice, because, after we have cleans'd it, and perceive it to penetrate, we must regard all the *Symptoms* nicely, in order to know whether we must trepan or no.

THE Signs, which assure us the *Dura Mater* is hurt, are a Weight, a Pain, an Inflammation, and a bloating of the *Eyes*, bleeding at the *Nose*, *Eyes*, *Ears*, and *Mouth*. These Signs almost always accompany a Fracture, and indeed it seldom happens that a Fracture, is so attended, but the *Dura Mater* is hurt, prick'd, and compress'd by *Splints*.

THE Signs, which demonstrate, that the *Brain* is hurt, are, the Patient upon the Stroak falls down, he loses his *Speech*,  
he

he falls into a *Syncope*, he vomits, his *Fæces* flow involuntarily, a *Fever*, a *Delirium*, a *Lethargy*, and *Apoplexy* succeed; these are evident Signs of a Commotion. It is not difficult to give the Reasons of all these *Symptoms*; as for the *Symptoms* of the *Dura Mater*, the Pain is great and acute, principally on the Part fractur'd, because it is press'd and prick'd by the *Splints* of the Bone, and by the *Acrimony* of the extravas'd *Blood*, which ferments, pricks, and brings on an Inflammation.

THE Weight of the *Head* proceeds from the same *Blood* extravas'd, that compresses the Parts; the Inflammation and Swelling of the *Eyes* supervene, by Reason of the (*Veins* which water them) Inability of discharging their *Contents* into the *Sinus* with the same facility, because of the Compression, Tension and Inflammation of the *Dura Mater*, which makes the *Blood* coagulate, ferment, and bring on the Swelling and Redness of the *Eyes*.

THE *Interruption* of the Course of the *Blood*, is the Reason also, why the *Veins* of the Eyes, the Nose, the Mouth and Ears, open and bleed.

UPON the Commotion of the Brain, the Patients fall down to the Ground, because the small Filaments of the Nerves, which are within the Brain, are compressed by the Fall. This Compression interrupts the Course of the Spirits, which run continually into the Muscles, to keep them in Action; so that the Interruption of the Spirits hindring the Spring of the Muscles, which cease to be further extended, as their Function requires, the Patient must necessarily tumble to the Ground.

THE *Loss of Judgment*, proceeds also from the Spirits, ceasing to flow into the Organs of Sense. The *Syncope*, and involuntary Efflux of the *Faces*, happen from the Privation of Spirits in the

P                      Heart

Heart and Intestines, occasion'd from the said Compression of the Nerves.

THE Vomiting proceeds from the Rapidity of the Course of the Spirits, into the Fibres of the Stomach, after having been stopp'd for a while, which occasions a Sort of Convulsion in this Part.

THE *Fever* and *Delirium* arise from the irregular Motion of the Spirits, and from the unequal Pressure of the Brain.

The Return of the *Fever*, with Shiverings are Signs of an Abscess in the Substance of the Brain, from the Particles of Blood extravas'd and corrupting there.

THE *Lethargy* and *Apoplexy*, proceed from the Subsidence of the nervous Canals, the Compression of the Arteries and Veins, from the Effusion of Blood upon the Substance of the Brain. The Prognostick of such Symptoms is easy, but the Consequence dangerous. A Fracture in *Cranio*, is not dangerous of it self, but only



only with respect to Parts contain'd within the Bones.

A Fracture with a Fissure, is less dangerous than that which is accompanied with a *Contusion*. The Prejudices done to the *Dura Mater*, are more or less hazardous according to their Degrees.

THE Substance of the Brain hurt is always dangerous, altho' some Authors have assur'd us, that Part of the Brain has issued from the Wound, and yet have been cur'd.

A Commotion, or Concussion is dangerous according to its Symptoms.

ALL the World knows, that Wounds of the Head are more or less dangerous, according to the Place where they are; because the Pieces, of which it is compos'd being more or less thick and solid, it happens pretty often, that a small one is broken also more easily, than a thicker Piece.

WOUNDS of the Head, with a Fracture in the *occipital* Bone, are very dangerous, by Reason of the *Cerebellum*, the *Medulla Spinalis*, and the lateral *Sinus*'s, which are contain'd within. When the *Stroak* is violent, these Parts receive a great Shock, which presently hurries on troublesome and mortal Symptoms. We have Reason, however, to say, that the least dangerous Wounds are those of the *os occipitis*, because being the thickest of all the Bones of the *Cranium*, a violent Stroak is requir'd to fracture it. Moreover, as it is the most depending Part of the Head, when there is a Fracture there, and we are oblig'd to trepan, the Matter has a freer Egress; and we may add, that the *Extravasation* of the *Blood* on *dura Mater* is not so easily made, which is a great Advantage to the Patient.

THE easiest Part of the *Cranium* to be fractur'd, is that Part of it, call'd by *Hippocrates*, *Bregma* (*βρέχμα*;) and that which we call, the *Fontanella*; it is the

Place

Place where the *Parietals* unite with the *Coronal*, and where the *sagittal Suture* Ends. The Reason, why this Part is always thinner and feebler, is ; because it is the last that *ossifies* after the Birth. The famous *Kirkerin* assures us, that in many Adults he has found it membranous, from whence we must not be astonish'd, if this Part shou'd be easily fractur'd; but in Recompence, the Danger is not so great in such a Case as elsewhere, and many affirm to have seen some Portion of the Substance of the Brain thrust out after considerable Fractures, where the Patients nevertheless have been cur'd. There are many grave *Surgeons*, who have asur'd us of these Facts ; but the same can't be said of Wounds of the *Cerebellum* and *Medulla Spinalis*; for the least Hurt, which happens to them, causes Death to the Patient.

WOUNDS of the Temples are also dangerous, and cannot be cur'd without Difficulty ; whether it be that the Artery  
there

there being open'd, a considerable *Hemorrhage* follows, which 'tis hard to stop, by Reason of the Motion, which is made from Time to Time in the Jaws; or that the *Crotaphite Muscle* being hurt, *Convulsions* often happen, which are always attended with ill Symptoms; and because we can neither speak nor eat without the Action of this Muscle, it often happens, that the Hemorrhage, which we seem to have stopp'd, returns afresh; so true is it, that the Cure of Wounds depends on the Repose of the Part injur'd.

*Incisions*, which we are oblig'd to make in Wounds of the *Crotaphite*, are likewise dangerous; because if the Wound of this Muscle be large, its *Antagonist* contracts, and then the Mouth is turn'd on one Side, which hinders the Patient's eating.

*Fractions* which happen upon the *Sutures* are yet more dangerous than elsewhere, not only from the small Fibres of the *Dura mater*, which are torn asunder by

by the *Violence* of the *Stroak*; but also by Reason of the *Extravasation* of *Blood*; which occasions the Difficulty there is in knowing them, as *Hippocrâtes* has well observ'd in his 5<sup>th</sup> Book of *Epidemicks*, where he affirms, that he has often been deceiv'd.

*Fraçtures* on the *Sinus frontalis*, run *Matter* for a long time together, because they are fill'd with Glands, which ouſe every Moment a mucous *Liquor*, which runs into the *Cavity* of the *Noſtrils*, and which is one of the Origins of the *Mucus* of the *Noſe*, upon which we muſt obſerve, that the Air comes out ſometimes thro' the Wound of theſe *Sinus*'s, with Force enough to move the Flame of a *Candle* from Side to Side; which is an evident Proof, that they are open towards the *Cavity* of the *Noſe*.

THE *Sinus frontalis* is not in every Perſon; they who have a flat *Forehead*, commonly have none at all: But ſuch as have a high *Forehead*, have always this Place

Place from the *Coronal* more jutting, and the *Sinus* are surely found in such Persons.

*Celsus*, and some others have observ'd before now, that *Wounds* with *Fractions* on the *Sinus frontalis*, can hardly be consolidated. But enough of this Affair, let us now speak concerning the Advantage of Medicines, which we must apply to the Head.

*Scultetus*, and several others apply immediately upon the *Dura Mater*, Oil of *Roses*: *Celsus* orders to apply *Vinegar*; but all of them are deceiv'd, and their Practice is irregular, for the following Reasons; first, *Oil*, whose *Particles* are ramose, bungs up the small *Tubes* or *Pores* of the *Dura Mater*, which hinders the *Circulation of the Blood*: The *Vinegar* also by its Acidity, coagulates and fixes the *Blood* circulating in the *Capillary Vessels* of the *Dura Mater*.

THE



THE Remedies therefore we must use on this Occasion, ought rather to be charged with subtle and penetrating Particles, and if the *Inflammation* of the *Dura Mater* be considerable, and that it begins to change, then we must quit all the more gentle Penetrants, and use spirituous *Liquors* themselves, such as *Spirits of Wine*, and such like, whose Particles are subtle, penetrating, and therefore proper to break the *Obstructions*, and to hinder the *Coagulation* of the *Blood*.

THE *Plasters* which we are oblig'd to employ for Wounds of the Head, ought always to tend to hinder the *Coagulation* of *Blood*, in tempering the Acid. An Affair we ought above all to take great Care of, is to dress the Lips of the *Wound* with *Cotton*, and to put it dry upon the Bone, to the End that the Matter which issues from the Edges of the Wound, may be suck'd up; least it should ferment and alter the Bone. We must also take Care, we don't expose the Wound too much to

Q

the

the Air, because, that being charg'd with acid Particles, wou'd make an *Exfoliation*, and perhaps a *Caries*, which wou'd make it a long and difficult Cure.

*Lastly*, To Wounds of the Head, we must not use Oil, or any other unctuous Medicines, for the Reason we have spoke on above, which is that these gross *Bodies* by their adhering and *ramose* Particles stop up the small Tubes, composing the Bone, and remain engag'd there; which occasions the Fluids, circulating within, to stand still, grow acid and ferment, and the volatile Salts to fly up, from which Accident the Bone turns carious, or a Shiver falls off, and thus there will happen an *Exfoliation*.

THERE are some *Practitioners*, who embrocate the Wound all round with *Astringents*, which they do in Order, as they say; to hinder an *Inflammation*; but it appears to me, that they deceive themselves strangely; for as in every *Inflammation*, there is an Obstruction, we must  
surely

surely avoid all Remedies, which are of an obstructive Nature, and all the World knows such are astringent Medicines.

WHEN the *Dura Mater*, and the *Brain* are hurt, it often happens, that in less than 24 Hours a *Fungus* springs up; which has been seen as large as a *Hen's Egg*. This *Fungus* arises according to the ingenious *Malpighi*, from small *Glands* which compose those Parts, and which being supplied with superfluous Nourishment, occasion this *Fungus*.

THIS fleshy *Excrescence* is form'd upon the *Dura mater*, it grows as the *Blood* abounds, so that we ought to stop up the Orifice of the *Trepan* very exactly. The Practice is to consume them with proper *Escharoticks*. If this *Fungus* have a narrow *Basis*, we may make a *Ligature*, or cut it with the *Scissors*.



## CHAP. XVIII.

*Of the Operation of the Trepan.*

THE *Trepan* is not applied upon the *Sinus frontalis*, by Reason of the Cavity; nor upon the Sutures, because we must shun the Fibres of the *Dura mater*; nor upon the *Temples*, but in a pressing Occasion; nor also upon the Fracture, because the *Trepan* cou'd not be supported; nor lastly, on the Middle of the *Coronal* and *Occipital*, by reason of an internal Eminence. We must always apply it as near as possible to the *Fracture*, and make the *Incision* a Day before we *Trepan*, if nothing urges, to the End that the *Blood* may not hinder the *Operation*.

THE

THE *Incisions* are made in different Manners, according to the Place where the Fracture is: In many Places of the Head, we make them crucially or long-wise; upon the *Crotaphite* and *Occipital Muscles*, in the Form of an *V*, that is, that the Union of the two Legs, must be at the Bottom of the *Crotaphite*. The *longitudinal Sinus* in this Place, will be more useful, and we shall thereby cut fewer Fibres. The greatest Part of the Practisers make the *Incisions* at the *Forehead*, in the Figure of a 7 or a *T*. Whenever Necessity does not oblige us to make them in this Manner, we must always follow the Wrinkles of the *Forehead*, and above all never to make the *Incisions* on the *Forehead* crucially, nor cut the *Lips* of the *Wound*.

WE dilate the *Wound* sufficiently to discover the *Fracture*, we cut also the *Perricranium*, to the End the Teeth of the *Crown* may not tear it. If *Symptoms* don't oblige us, we don't take off the Dressings

Dressings till Morning, we clean the Bone, and we see if it be fractur'd. If there be any Piece separated, we take it away with the *Forceps* : But if we cannot, we apply the *Trepan*.

AFTER having stopp'd the Ears of the Patient with *Cotton*, we make him lean his Head upon a firm *Prop*. We place the *Trepan* below the Fracture; we press gently, when we come to the *Second Table*. We often take off the *Trepan* in order to take away the poulder'd *Bone*; before we apply the *Crown*, we make a *Hole* with the perforative *Trepan*, to secure the *Pyramid* of the *Crown*. When the Circle is sufficiently made, we take away the *Pyramid*, and we replace the *Crown* in continuing to turn gently round. We often take the *Trepan* off in order to try how much of the *Bone* remains to be bor'd; for altho' we press equally, it happens, that the *Cranium* is bor'd more on one Side than another, which obliges us to press upon the Part least bor'd. This Inequality



quality proceeds often from the *Bone* being unequally thick.

BEFORE the *Bone* is intirely bor'd, we apply the *Peircer*, in order to lift it up; we must also often move it with the *Levatory*, that we may take it away without Violence. The Piece being taken away, the Edges of the *Bone*, next the *Dura Mater*, are unequal, which we take off by the *Lenticular*. If there be a considerable Depression, we lift it up with the *Levatory*, and we take off the *Shivers* from the *Dura Mater* with false Tents. We put a small *Sindon*, of the Size of the *Hole*, with a *Thread* at it; we dip this first in *Spirits of Wine*, mixt with *Mel Rosarum*; we fill the *Hole* with *Dossils*, dipt in the same *Liquors*, and the Wound we dress with *Pledgits* dipt in *Tincture of Myrrh*, and fill up with *Compresses* dipt in warm Wine. The *Chamber* must be warm, shut and free from Noise; the Dressings must all be applied warm.

THE

THE *Dura mater* is sometimes inflam'd so much, that it comes forth at the *Hole*, so that we must always take Care to stop it well up. Sometime *Fungous* Flesh grows upon the Part, which we must take off with *Desiccatives* and *Astringents*.

WHEN Blood and Matter lodge between the *Brain* and *Dura mater*, we must open with a *Lancet* to give Vent to the Matter, and to deceive the By-standers, it might do well to hide it among the false *Tents*, and pretending to wipe something off, pierce the *dura mater*.

WE must sometimes apply more *Trepans* than one, to give Vent to the Matter, or to get all the shiver'd Pieces of Bone. The *Exfoliation* is a Work of Nature.

WE apply the *Trepan* for the Pricking and the *Compression* from *Splints*, in order to give Vent for the Matter and to apply Medicines.

THE

THE *Ancients* also us'd it to supply the *Expulsive Bandage*; but this use is *Imaginary*.

THERE are three Sorts of *Trepan*, the *Perforative*, the *Exfoliative*, and the *Indented*. The first makes the *Hole* of the *Pyramid*; the second, was such as the *Ancients* us'd to see if the *Fracture* penetrated, but 'tis useless; the last is a round *Saw* indented for taking off the *Piece*.





## C H A P. XIX.

*Of the Fistula Lacrymalis.*

THE *Fistula Lacrymalis* often follows an *Abscess* form'd in the greater *Canthus* of the Eye, which turns into an Ulcer, degenerating into a *Fistula*. In this Disease there is always an *Obstruction* in the *Lacrymal Duct*, so that the *Tears* having no Passage for themselves thro' the *Nose*, run involuntarily over the Edges, which is unseemly, and very troublesome to the Patients.

THE Ancients say, that a *Fistula Lacrymalis* was caus'd by an *Abscess* on the  
La-

*Lacrymal Gland* seated at the greater *Canthus* of the *Eye*; but there is no *lacrymal Gland* at that *Canthus* in Man; they took this little Jutting, in the Manner of a *Caruncle* at this *Canthus*, for a *lacrymal Gland*, which is only a Reunion of the interior Membrane of the *Eye*lids. There are at the Sides of this Eminence two small Holes, which we call *puncta Lacrymalia*, which are the Openings of a small membranous *Sac*, which lengthens in the Manner of a Sheath in the Hole of the *os unguis*; and it is the Ulceration of this *Sac*, which causes the *Fistula lacrymalis*, and which hinders the Passage of the Tears into the Nose.

THE Operation consists in making a Hole in the *os unguis* to give Way for the Serosities to drop thro' the Nose. We make an Incision obliquely and semicircularly around the *Canthus* of the *Eye*, taking Care not to cut the Tendon of the *Muscle* of the *Eye*lids. Having discover'd the *os unguis*, which is always carious, we put a Probe near the Passage, we slip

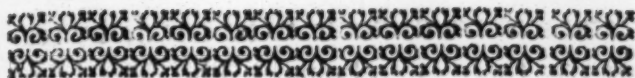
R 2

a strait

a strait *Cannula* over the Probe, in order to introduce an actual Cautery to pierce the Bone; we apply the Cautery as often as we find it necessary: We dress the Wound, and we hinder the Flesh from stopping up the Hole we have made into the Nostril by Tents. We lay on a Plaster, a Compress and Bandage, which is a *Handkerchief* sloping.







## CHAP. XX.

### *Of a Cataract.*



THE Cataract is an Obstruction of the *Pupilla*, caus'd by a viscus Humor, collected in the watery Humor between the *Cornea* and *Uvea*, and sometimes, if not mostly, it is the Crystalline which becomes opac before, when it is intirely form'd, it hinders the Light; there are transparent Cataracts, where the Object appears, as thro' a Cloud; there are also white, black, yellow, green and livid Cataracts.

THE

The black, yellow, and lead-colour'd, Cataracts are difficult to be cur'd, by reason of their Thickness. The Pearl colour'd, are curable by the Needle.

THE *Cataract* must be dry'd and harden'd to bear the Needle, which without this Circumstance wou'd pass thro' it, as thro' Water. If in rubbing the Eye, and if in the *Dilatation* of the *Pupilla*, the *Cataract* continues firm without dividing into Parcels, it is ripe and in a State to bear the Needle; in short, if when the Rays of a Candle pass thro' a Viol full of Water, or a *Globe* of Crystal, the Person affected perceives Colours, the *Cataract* is not yet thick enough.

To couch it, we make the Person sit in a clear Place, expos'd to the Light; one holds their Head firm behind; we cover the sound Eye, to hinder the other from moving, and we direct the Patients to turn their *Eye* towards their *Nose*. The *Surgeon* pierces the *Conjunctive*, near the  
Co-

*Cornea* on the Side of the lesser *Cantbus*, with a round Needle: It must be push'd boldly into the *Cavity*, the Point appears presently, we lift it above the *Cataract*, to the End we shou'd depress it below the *Pupilla*, where it must be kept some time.

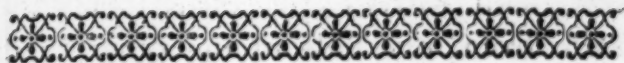
IF the *Cataract* continues below the *Pupilla*, the Patient is cur'd; but if it mounts again, we are oblig'd to couch it again, and to press it down more strongly. Then we draw the Needle gently out, and we ask the Patient, if he distinguishes *Objects*. We meet with *Cataracts* as hard as Parchment; these Sorts of *Cataracts* remount as soon as they are couch'd, so elastick are they.

THE Vessels of the *Conjunctive* sometimes diffuse their *Blood*, and this it is, that occasions an *Ophthalmy*; but in a few Days after, these Accidents cease. We put upon the Eye a *Compress* dipt in *Plantane Water*, mixt with the White of an *Egg*.

THE

THE Patient must take Care not to move the Eye for some time; the Needle with which the *Operation* is perform'd, is always a hafted one, and is either round or flat.





## CHAP. XXI.

*Of the Polypus.*

THE *Polypus* is an *Excrescence* of Flesh, which bungs up the *Nostrils*; and as its Root is not always double or manyfold, so its Name cannot be properly always denominated *Polypus*, since it is most commonly *Monopus*; \* there are some *Polypus*'s attended with Pain, and are then *cancerous*; others are *scirrhus* or hard, but without Pain: Those *Polypus*'s which are ulcerated, are manifest *Cancers*. The *Operation* can only be perform'd in the soft, the white, the red, and hanging *Polypus*'s.

---

\* πολὺς ἔσσις many Feet, μόνος ἔσσις one  
---Foot.

THE *Surgeon* pinches the *Polypus* at its *Root*, with *Forceps* ; he turns these *Forceps*'s from one Side to the other, and drawing insensibly, tears it out by the *Roots* ; having tore it out, the Patient must draw a little *Wine* up their *Nostrils* ; and we apply astringent *Pouders*, in Order to heal up the *Ulcer*.

THE *Polypus* which passes down into the *Throat*, below the *Uvula*, may be drawn out, thro' the *Mouth*, by curv'd *Forceps*'s : But after all, these fleshy *Excrecences* are subject to grow again.







## CHAP. XXII.

*Of the Hare-Lip.*

WE call the *Hare-Lip*, when the upper Lip is cleft; it is a Fault in *Conformation*, or it comes by some *Accident*: If it be old, we must cut the Surface of the *Edges*, which are always callous, with *Scissars*; if the Lip adheres to the Gums, we must separate it, and hinder it from re-uniting with *Bolsters*.

THE Ancients propos'd to make an Incision lengthways, or *Crescent-wise* in the Cheeks, to make the *Edges* approach more easily; but there wou'd remain a Scar, not very agreeable to the View. 'Tis for this Reason better to *unbridle* the Lip in

detaching it as much as possible, there is nothing to be fear'd from it. If, however, the *Deformity* be considerable, we must not undertake it.

WE must not perform the *Operation* in *Infants*, who are as yet in the *Cradle*. Their continual *Crying*, the *Softness* of their *Skin*, the *Necessity* they are under of constantly sucking the *Breast*, would hinder, without doubt, the *Re-union*. We must then wait till they are three or four *Years* old.

THE *Operation* requires no great *Preparation*: After having mark'd the *Distance* of the *Stitches* with *Ink*, we pass a threaded *Needle* into the two *Lips* of the *Wound*, around which we turn a *Thread*, or cut the *Point* of the *Needle* with *cutting Pincers*; we put as many *Needles* in as are necessary, and small *Compresses* under the *Points* of the *Needles* we dress the *Wound* with *Balsom*. The *Wounds* of the *Lips* do easily reunite. The *Cicatrix* being

being made, there always remains a small *Furrow* above the Place of the Angle of the *Hare-Lip*; for this Reason we must make a small transverse Incision in the Skin; lay on a *Plaster*, *Compress*, and an uniting *Bandage*.





## CHAP. XXIII.

*Of the Bronchotomia.*

THE *Bronchotomia* is an *Apertion* of the membranous Part of the *Trachæa Arteria* between any two of the Cartilaginous Rings; we don't perform this *Operation*, but when the Patient is in Danger of *Suffocation*; which happens by an Inflammation of the *Larynx* in an *Agnina*, which hinders *Respiration*.

THE *Operation* is perform'd by pinching the Skin transversly, upon which we make an Incision; we dissect the Muscles *Sterno-hyoidei*, the whole Length of the Line, that joins them, and we take Care, we don't touch the *Glandula Thyreoidea*, or the recurrent Nerves, which are plac'd laterally along the *Trachæa Arteria*; for  
if

if we shou'd cut them, the Patient wou'd lose his Voice.

THE *Trachæa Arteria* being discover'd, we open the Interstice of the Cartilages with a Lancet, we make the Aperture between the third and fourth Ring next to the *Cricoides*: Before we draw the Lancet out, we introduce a Probe, upon which we slip a short *Cannula* flat and crooked, to the End the Patient may breathe easily. We put upon the Orifice of the *Cannula* a little Cotton, with a Plaster pierc'd, to the End the Air may not enter all at once.





## CHAP. XXIV.

### Of Amputation.



HERE are two Occasions, which oblige us to amputate; the first, when the Parts are so mortified, and the Bones so broken, that it is difficult to reduce them: The second, when the Gangrene and Mortification are so great, that all Remedies are to no Purpose.

A *Gangrene* is an immediate Disposition to a Mortification of the soft Parts. A *Sphacelus*, is an entire Corruption. The Word *Gangrene* signifies to gnaw (from *gēdo comedo*) and hence it is, that *Guido* call'd it *Esthiomene*, altho' an *Esthiomene* signifies



signifies also gnawing Ulcers, and corrosive Tettars.

THE Signs of a Gangrene, that is, when after an Inflammation, there supervenes a white Colour, which often changes into a Yellow or Purple; the Pain diminishes, livid Vesicles full of a yellow or bloody Serosity appear; in fine, the Sense of the Part is lost, the Part becomes heavy, and the Epidermis is separated from the Skin.

IN the Sphacelus the Colour is livid, the Part is cold, and soft; an insupportable Smell exhales and all feeling is lost. The Causes of a Gangrene, says *Guido*, are general or particular. Under the General, are comprehended all the Causes, which hinder the Spirits or Blood to run to the Part. Under the particular Cause, three are comprehended; the first, a great Cold, Application of Remedies too cooling, Burns, great Fractures, Dislocations, Contusions, Ligatures too strict, and great Hemorrhages happening to Wounds.

T

IN

IN General, what makes a Gangrene, and Mortification of any Part, is the Dissipation, the Absence, or Concentration of the spirituous Parts of the Blood, which ought to enliven that Part, or rather the Interruption of the Course of the same Blood, and its Coagulation.

ALL these Causes may act the greatest Part of the Time separately, and sometimes all together. The Ancients have also made a Cause of a Gangrene, which they term'd *occult*; 'tis from thence, say, they, that a Gangrene happens in the Plague, or a Carbuncle, which causes sometimes, in 24 Hours, an entire Mortification of a Part: 'Tis to the same Cause they attribute a Gangrene, which happens after malignant Fevers; and sometimes after the Small Pox. In short, it is from the same Foundation, that they pretend to explain a Gangrene, which happens from *Poisons* and *Bites* of venomous Beasts.

It is certain, that all these Things are often Causes of a *Gangrene*; but can't we give Reasons, without having Recourse to occult Qualities? In the *Plague*, for Example, the *Carbuncles* do often introduce a *Gangrene*, because the Humor that produces them, is equal to an *Aqua fortis*, which corrodes the Flesh, and cauterises the Vessels; from whence it must of Necessity mortify the Part. The same may be affirm'd of the Matter of malignant *Fevers*, and *Small Pox*, where the *Blood* is charg'd with acrimonious and corrosive Particles. If it happens, that this *Acrimony* cannot be conquer'd by Nature, or Medicines, it makes a Lodgment upon some Part, where the acrimonious and corrosive Humors gnaw the Flesh, cauterise the Vessels, and render the Bones carious.

THE same may be said of *Poisons*, which act by their *Acrimony*; some of which are acrid and acid, and others acrid and lixivial; which produce the

T 2 same

same Effects as actual Cauteries; thus are discover'd those occult Causes, which the *Ancients* believ'd so incurable.

WITH respect to the Differences of a *Gangrene*, it is not difficult to infer them, from what we have said in speaking of their Causes, and we might establish one from each particular Case. It is worth remarking, that the Signs of *Gangrenes* are not always the same, and that they differ in the different Species of *Gangrenes*. We will enlarge no more, for fear of being led too far out of our Road.

THE *Gangrene* which happens to old Men, and to *Hydropicks*, is always incurable, and therefore it is in vain to attempt the Operation in them. That which befalls moist and tender Parts, above all the Internals, is dangerous, and most commonly terminates in a *Sphacelus*. That which comes from an external Cause, as from *Contusions*, *Burns*, *Inflammations*, is easier cur'd than others.

In

In short, a Gangrene is more readily cur'd in robust Persons, than in *Cacochymical* ones, and in the young than old.

As there is no Disease more pressing, than a Gangrene, there must therefore be none which requires more ready Assistance, since the Mortification of a Part threatens the Death of the whole Subject: We must then hinder the Progress of so troublesome a Malady by all the Means possible; it is useless to attempt the Cure of a *Sphacelus*, there can be no Return from Death to Life, and we must have Recourse to Medicines, the Iron or Fire.

WE must then have Recourse to Fire, and the Iron, according to *Hippocrates*, for fear the Evil shou'd encroach upon the neighbouring Parts. In the mean while, in the Beginning of a Gangrene, we use a great many *Remedies*, which often have a very good Effect. We immediately order a convenient Diet, and we don't prescribe *Bleeding* or *Purgatives*, till we have the Advice of a Physician.

After

After which we give *Remedies* proper to destroy the predominant *Acrimony*, to wit, such as sweeten and correct the lixivial or acid *Salts*, or such as fortify the Part. And they contribute either to retain the spirituous Parts of the *Blood* from escaping, or to disengage them when they are accumulated, or to produce a new *Fermentation* and *Separation* of the bad *Leaven*, and to cherish the *Heat* and *Spirits* in the Part.

THESE *Remedies* are numerous enough, according to the *Practitioner's Idea*, and *Experience*. In general, we may say, that all the *Internal Remedies* are *Diaphoretick*, *Cardiack*, and *Vulnerary*.

The *External* are *Scarifications*; whether it be, that they disengage the Parts, or rather discharge a *Quantity* of *Blood*, and extravas'd *Humours*; or, lastly, make *Room* for the Medicines to penetrate deeper, and produce a more sensible Effect.

THESE



THESE *Topicks* are vulnerary *Decocti-  
ons*, as those which are made of the two  
*Birthe-worts*, *Periwinkle*, *Angelica*, *Gol-  
den Rod*, *Wormwood*, *Scordium*, *Vinceto-  
xicum*, *Rue*, with *Wine* or *Water*.

THE *Tinctures* of *Aloes*, *Olibanum*,  
*Myrrh*, made with *Spirit of Wine*, *Lime-  
water*, *Phagedenick-water*, *Salt-water*,  
or others of this Nature. In short, the  
Cure is different, according to the Diffe-  
rence of the *Causes*, which produce it.  
We shall make a short mention of each  
particular *Cause*.

IN a *Gangrene* which happens to old  
People, from a Defect of Spirits, and to  
*Hydropical* Persons, we must use nourish-  
ing and spirituous *Diet*; scarify the Parts,  
and bathe them with the *Remedies* we  
have spoke of.

WHEN the *Gangrene* is caus'd from  
*Cold*, and that the Part is not as yet mor-  
tified, you must cause the Patient to be  
re-

remov'd near the Fire, rub and cover the Part with *Snow*, or hold it for some time in cold *Water*, and rub it with *Spirits of Wine*.

IN *Inflammations, Fractures, Contusions*, and *Aneurisms*, *Bleeding* is the readiest *Remedy*, to hinder the *Extravasation of Blood*, *Scarifications* are always necessary.

IN *Fractures* and *Luxations*, we must replace the Bones, and relax the *Bandages*. Then we make use of the same *Remedies*. In *Ulcers* and *Burns* which terminate in *Gangrenes*, *Lime* and *Plagedemick-waters* are wonderful : In the *Scurvy*, we must mix *Antiscorbuticks* with the ordinary *Remedies*.

WHEN the *Gangrene* is occasion'd by any *Malignity*, besides the *Cordials* given internally, we must mix with the usual *Topicks*, *Diascordium* and *Venice Treacle*.

IN

IN short, if all our *Care* and *Remedies* are ineffectual, and the Gangrene perceptibly gains Ground, we must then resolve soon upon the *Amputation* of the Part: 'Tis true, this is a last Refuge, because it is cruel and dangerous; but as it is the only Chance for Life; Necessity serves for our Excuse.

WE must never *Amputate* in the Articulation without an absolute Necessity. If it is the Leg, we must amputate as near the Knee as possible, altho' the Mortification were in the Foot; because a long useless Stump is burdensome, and they can't carry a wooden Leg so well in that Supposition. We must observe, that we must avoid amputating upon the *Aponeurosis* of the Muscles, which are fix'd upon the Eminence, on the upper Part of the Tibia, and cut a little lower; for the Accidents are troublesome which follow thereupon, such are Convulsions, Inflammations, and long Suppurations.

IF it be the Thigh we are to amputate, we must perform the Operation near the Knee, for the Convenience of a wooden Leg. If it be an Arm, cut as little off as possible. We will describe the Manner of amputating a Leg.

WE place the Party upon the Edge of a Bed-Couch, or Chair, making your Assistants hold him behind, a *Servant* holds the Member above the Knee, and draws the Skin up. We put under the *Ham* a pretty thick *Compress*, and then we make the *Ligature*, which we lock with the *Torkinet*. Before we lock it, we place a small *Pastboard* below the *Ligature*, at the Place of the *Torniket*, to hinder the Skin from flying, which wou'd occasion Pain. This Sort of *Ligature* is more commodious, the Party feels not much Pain, and the Skin wrinkles not at all, we lock it as much as we can. We make another *Ligature* under the Knee, which only serves to make the Flesh firm.

THE

THE *Surgeon* stands between the Patients Legs, makes an *Incision* with a curv'd Knife round the Member to the Bone, and with the Back of the Knife scrapes the *Periosteon*, and cuts the Flesh which is between the *Bones*.

I have said, that he ought to be plac'd between the Patients Legs, to the End, that he may bear up his *Saw* upon the two *Bones*, in order to cut them both at once, which he could not do so conveniently in any other Situation.

WE begin to saw the *Fibula*, and then the *Tibia*; the Leg being cut, we undo the *Ligature*, which held the Flesh tight, we relax the *Torniket* to suffer the *Blooa* to run a little, and also for seeing the Vessels which we must tye; we catch hold of them with small *Forceps*, over which a *Knot* is prepar'd for tying the Vessels; or which is surer, we pass a Needle with wax'd Thread under the Flesh where the Vessels are, and so draw it through, and

tye it safe. The Vessels ty'd, we undo the *Torniket*, we fold up the Flesh of the Member, and we pull down the Skin to cover the Stump. We put small *Compresses* upon the Vessels, a dry Pledget upon the Bone, and many Pledgets charged with astringent Pouders; a large Pledget charg'd with the same Pouders; a *Plaster*, a *Compress* cut like a *Maltese Cross*; four *longitudinal Compresses*, and one *Circular*, which wraps up the whole, a *Circular Bandage*, and the *Capline*. It often happens, that after having amputated the Leg, some time after the *Suppuration*, the Bones thrust out beyond the Flesh; which falls out, by Reason the Bones were not saw'd near enough to the Flesh: Wherefore it is good to put, after the *Incision* made, an End of Fillet cleft at the Extremity, with which we draw the Flesh on high; by this Means we can cut the Bone nearer the Flesh, than we can otherwise.

THE *Surgeons* sometimes make a Difference between *Pinking*, *Scarifications*, and *Slash-*



*Slashing.* The first are slight, and only penetrate the Skin, call'd *Pinking*. The second are deeper, and are call'd *Scarifications*. *Lastly*, The third pierce to the Bone, and 'tis term'd *Slashing*. But above all, we must take Care of the Vessels.

THESE Incisions must not be in the same *Line*, but one among another; for otherwise they make *Bridles*. By these Incisions and Medicines, we often hinder the Progress of a Gangrene.





## CHAP. XXV.

*Of the Reunion of a Tendon.*

IT is a long Time since *Tendons* have been us'd to be cut, since *Galen* forbid the Practice of it, because, says he, they can't be consolidated, and *Convulsions* happen upon it.

*Guido Cauliacus*, who liv'd above 300 Years ago, and many others before him, practis'd it with Success; but since him it has been condemn'd by all the Writers in *Surgery*, insomuch as it was quite laid aside till the *French* again attempted it, and with good Success.

THERE

THERE are two *Reasons* which oblige us to make the *Suture* of a *Tendon*. The first, when the Wound is fresh, and the second, when it is cicatriz'd. If the Wound is cur'd, the Surgeon must open it to discover the *Tendon*, which is cut. The two Extremities being found, we must cool the Edges as little as may be, that they may reunite. We make 'em ply, and bend 'em to make 'em approach each other; and 'tis an Affair we must take particular Care of, because the Tendons always retreat. We scarce make Sutures, but on the Extensors.

THE Method of performing this Operation, is in the following Manner. We take a streight and flat Needle, threaded with a double Thread, which we draw thro' a small Compress, stopp'd at the End; we pierce deep enough into the Tendon, from without inwards, and we cut the Thread long enough. We have another small Compress pierc'd with two Holes, into which we pass the Thread;  
with

with these Threads we make a Ligature, under which we put another small Compress. *It is in this Operation, as in most others, we should see it done, to be able to do it well.* We dress the Wound with *Balsam*. It is to be observ'd, that the Part must be sustain'd by a Machine, which holds it fast, to the End that the Extremities of the of the *Tendon* may not retire from each other.





CHAP. XXVI.



*Of the Cæsarian Operation.*



HIS Operation is call'd the *Cæsarian Section*, because it is deliver'd down to us, that *Cæsar* was born in this Manner.

WE make an Incision on the dead Woman, from the *Navel*, to the *os Pubis*, lengthways on the *Musculi recti*, we open the *Peritonæum*, and the Womb appears presently; we make an Incision towards the Bottom, in order to draw out the *Infant*.





## CHAP. XXVII.

*Of the Paronychia.*

IS also term'd *Panaritium*, or with us a *Whitlow*; which is a Tumour at the End of the Fingers.

To open this *Tumor*, we make an Incision at the Side of the Finger to the Bone, when the Matter is contain'd between the Bone and *Periosteum*. If we shou'd make Incision any other Way, we might cut the *Tendons* of the *Flexors*; but making the Incision Sideways, there can be no Fear of this Accident.

CHAP. XXVIII.





## CHAP. XXVIII.

### *Of the Application of Causticks.*

**C**AUSTICKS are not to be apply'd upon nervous Parts, nor upon the Extremity of a *Tendon*; but in the Middle; they are not apply'd upon Places, where there are large Vessels.

To apply them, we first rub the Place, where we wou'd put them, with a warm Linnen-cloth, to the End, that their Effects may be quicker. After which, we apply upon the Place a *Plaster*, pierced with a small Hole, and we bruise the *Caustick*, and lay it upon the Hole of this *Plaster*; we cover the *Caustick* with another *Plaster*, then lay on a *Compress* and bind it up.



## CHAP. XXIX.

## Of Setons.



HIS Operation was much in use among the Ancients; it was the most common *Remedy* for Diseases of the Head, and Defluxions on the Eyes; because they thought, that it made a strong *Revulsion*, and that it was like a double *Caustick*; but *Bleeding*, generally in all *Fluxions*, is a Remedy much more efficacious; because it discharges the Habit of the Body; which a *Bundle* of *Tbread* that passes only thro' some *Teguments*, whose Discharge is inconsiderable, cannot so well effect.

THE Effect of a *Caustick* is not more advantageous, and 'tis evident, that *Bleeding* and *Purging* are much more profitable than

than all flow *Suppurations*. However, as they are recommended, the Manner of making them, is thus.

WE make the Patient turn back their Head in order to pinch the Skin the Easier. A Servant takes hold, with both Hands, of the Skin below the Hair, drawing it upwards, and the *Surgeon* pinches it with *Pincers*, that have Holes in them, (to lessen the Sense of the Part), we pass thro' these Holes and Skin, a large Needle threaded with filken *Threads* bundled up to together, dipt in *Oil of Roses*, and then we bind on a *Compress* dipt in the same.





## CHAP. XXX.

### *Of Cupping Glasses.*



*Cupping Glass* is a large *Vessel*, with a narrow Entrance; we apply them upon soft Parts to draw violently and with Force.

THEIR Differences are only in their *Matter*, *Size*, and *Figure*, which Things are not worth our Notice.

*Cupping Glasses* are dry or moist; the *Dry* are so call'd, because we don't scarify the Skin. We call them *Moist*, when we do scarify. When we apply a *Cupping-glass*, we put within it a little *Tow* set on fire, or rather a Ring of *Card*, with  
the

the Ends of a *Bougee* of *Wax-Candle*. The Vessel being applied upon the Part, the *Flame* instantly goes out, and the Skin rises up within. The ancient *Philosophers*, knowing nothing of the *Properties* of *Air*, call'd this Rising a *Fuga vacui*; which the Weight of the *Atmosphere* explains best; for the *Flame* of *Wax-candle* lighted rarefying the *Air*, that within is rarer and lighter than the external *Air*, which therefore presses the Skin into the *Glass* till the internal *Air* is again compress'd to an *Equilibrium* with the *External*.

I cannot say, that the late *Invention* of *Cupping-Glasses*, have any Advantages over those us'd before, for the Skin rises high enough for our Purpose with the old ones.

THEY were us'd upon many Occasions by the Ancients. *First*, they apply'd them upon the Part affected to draw out the Humour; upon this Score, they apply'd them upon pestilential *Carbuncles*, to draw out  
the

the Venom, upon the Bite of venomous *Animals*, and upon *Venereal Bubo's*.

*Hippocrates* also apply'd *Cupping-Glasses* to Womens *Breasts*, to stop the immoderate Flux of the *Menstrua*. He also apply'd them upon the *Spleen*, and *Liver*, to stop an *Hermorrhage* at the *Nose*. The Ancients also apply'd them to the *Neck* and *Shoulders*, to hinder the Fluxions, which fall upon the *Eyes* and *Throat*, and, in short, to the Groin and Thighs, to provoke Women's *Menstrua*; but at present their Use is not so extensive.







A Short  
DISCOURSE  
ON THE  
*Venereal Disease.*

---

CHAP. I.

*Of the Difinition and Signs of the  
Lues Venerea.*



AMONGST the many that  
have wrote of the *Venereal  
Disease*; some say that the  
*Lues* is an occult *Malady*, and  
others, that it is an universal *Intemperies*,  
expanded thro' the whole Body. By  
Y these

162 *A short Discourse on*

these vague *Definitions*, they leave the *Understanding* in doubt, and throw us into Despair of ever discerning a Disease, which of its Nature appears so hidden.

THEY who say it is a general *Corruption* of *Humors*, contracted by an impure *Coition*, by a *Communication* of some malignant *Vapors*, have without doubt, more Reason than the first: They have yet more than these, who defin'd it by an universal *Intemperies*, without saying, 'tis hot or cold; but these Reasonings giving us no clear *Idea* of the *Virus*, which occasions the *Lues*, nor of the manner it acts; let us try if we can better unravel this Affair.

WE see, by the Spots, the *Pustules* and *Ulcers*, which infest the whole *Habit* of the Body, manifest Signs of a general *Corruption*; and we know by the Experience of an infinite Number of unfortunate People, that the *Lues*, most an End, communicates it self by an impure *Copulation*.

IT

IT is not, that we are ignorant, that this Disease cannot happen in another Manner; every one knows, for Example, that if an *Infant* suck an infected Nurse, it will be spoil'd, or that an Infant it self being infected by the *Fault* of the Parents, may give it the Nurse; or that, in short, a sound Person lying in Linnen infected with this *Poison*, which is communicated to it by a *Pocky* Person, may be also diseas'd; for it is certain, that in all these Circumstances the *Pox* may be caught; but will always be true to say, in tracing its *Original*, that it is in impure *Copulation*, that this *Infection* is first communicated by: Wherefore this *Definition* is more consonant, than the others; for tho' we know not how to express the Differences by one and the same *Definition*, we cannot be at a Loss to give one just enough for the *Pox*.

THIS *Disease* more dangerous than a *Plague*, not to offend those it makes Sufferers, insinuates it self gently, resembling at its off-setting some slight *Indis-*  
Y 2 *positions* :

164 *A short Discourse on*

*positions*: But when it is once lodg'd, and that it has taken Root, it begins to be felt and known, not only by *Spots* and *Pustules*, which infect the Skin, but also by dry, round, and red *Pustules*, which seize upon the *Forehead*, *Lips*, *Breast*, *Anus*, and natural Parts; and to imprint, in the *Frontispiece* of the *House*, a *Character* of its ugliness, it degrades the Face of all its *Ornaments*, which *Nature* has bestow'd on it, it takes away the *Hair* of the *Chin*, the *Eye-lids*, and *Eye-brows*; presently the Body becomes full of fordid *Ulcers*, the *Countenance* loses its lively and natural Colour, the *Eyes* become livid, and shed involuntary Tears, the *Ears* tingle, the *Nose* becomes stinking and infested with *Ulcers*, which consume it, the *Mouth* also ulcerates, the *Teeth* are painful, the *Amygdales* are bloated, the *Uvula* relaxes, the *Voice* breaks the *Shoulders*, *Sternum*, and the Middle of the *Arms* and *Legs* feel such exquisite Pains, that it seems as if they were pierced with Needles. The Nerves, Tendons, Ligaments, and *Periosteum* suffer divulsi-

ONS,

ons, which occasion cruel Pains, which augmenting at Night, continue in equal Vigour till Morning, when the Hopes of Comfort, and a little Repose rise with the Sun.

OVER and above this *Train of Evils*, there follow Nodes, *Exostoses*, and *Carries* of the Bones, which betoken their *Corruption*, and of which we are more ascertain'd, when we know that one of these three Couriers, to wit, a *Gonorrhæa*, a *Shankre*, and *Bubo*, have mark'd out its Abode.





## CHAP. II.

*Of the Origin of the Pox.*

IF we consider the rough *Draught* I have given of the *Lues*, it is easy to perceive, that it is a dangerous *Malady*, and we must not be surpriz'd, that so many different Names have been given it, which have been drawn from the *Country*, from whence it is supposed to have sprung. Altho' to speak the Truth, there is no Nation, that does not disown it, and which does not reject the *Shame* of having given Rise to such a *Monster*; from hence it is, that the *French* have heretofore, given the Name of the *Spanish*, or *Neapolitan* Distemper; the *Italians*, *Spaniards*, and *English*, call it the *French* Disease; and others,



*the Venereal Disease.* 167

others, the *American, Venereal, or Great Pox.*

THE Newness of these Names impos'd at the same time, upon their *Hatred* to each other, is a Sign that the *Ancients* had no Knowledge of this Disease. *Hippocrates* in the third *Book of Epidemics*, second *Section*, mentioning a *History* of a like *Illness*, sets down the Signs of the *Lues*; but because he says, these *Symptoms* were *Companions* of an ardent *Fever*, which never, or very rarely, happens in this Disease; it is to be suppos'd he speaks of another *Malady*.

*Galen* and others agree, that *Hippocrates* speaks of a violent *Plague*. *Gordonius* a famous Physician of *Montpellier*, who liv'd in the thirteenth *Century*, speaks of a *Gonorrhæa* and *Shancres* of the *Penis*, which are got, says he, by lying with impure Women: But he does not say, these *Maladies* were virulent, or that they had any other *Consequences* attending them, than simple *Heat*.

THE

THE *Leprosy*, for which the pass'd Ages built so many *Hospitals*, has great *Marks* of the *Pox* in its exterior *Shape*; insomuch, as some Physicians believ'd, that it was the same *Disease*, which changed into the *Lues* at the End of the fifteenth *Century*; and what confirm'd them in this Sentiment, was, that since that Time, whether we have abus'd the *Terms*, or whether we have taken the *Leprous* for *Pocky* People, they have refus'd to receive them into the *Hospitals*, whose Revenues they have applied to other good Uses.

To answer this Doubt, which is well enough grounded, we say, that if we don't see so many *Leprous* Persons, since the *Lues* begun as before; it is that having taken them for pocky Persons, because of the *Appearances*, they have cur'd them with Remedies for the *Lues*; mean while we must not draw this Consequence, that the Remedies which cur'd the *Lues*, cur'd the *Leprosy*; for then the  
Lues

*the Venereal Disease.* 169

Lues and Leprosy wou'd be one Disease: For we know by ordinary Practice, that one and the same Disease may be cur'd by different *Remedy*.

LET us say then with the Vulgar, that the *Lues* has contributed to cure the *Leprosy*; since it was the Occasion of withdrawing the *Salaries* from the Hospitals, and let us conclude with the major Part of the *Moderns*, that the *Lues* is also as different from the Leprosy, as a Phlegmon from a Cancer; because the *Leprosy*, which is call'd an *universal Cancer*, and *atrabilarious*, differs from the *Lues* in this, that of it self, it communicates it self to all People indifferently of what *Temperament* whatsoever, and it is more familiar to *Blood's*, that are directly opposit to *atrabilarious*. Thus the *Ancients* speak, when they wou'd denote *Melancholick Constitutions*.

THE Leprosy is usually hereditary, it is slowly generated by an ill *Regimen* of Diet. The *Lues* communicates it self

Z

most

170 *A short Discourse on*

most frequently by Coition, and surprises in a little Time Persons of a plump Habit, and such as live high. The Leprosy occasions little or no Pain, but the *Lues* becomes insupportable.

WE might shew other Reasons also, to make the Difference of these two Diseases more evident: In short, Authors, who have wrote of Physick, wou'd have spoke of the *Lues*, if they had known it.

SOME think, that it did not begin to reign in our *Continent*, till the Years 1433 or 1434, where it shew'd it self.

THE better Part of Historians and Authors, who have spoke of the *Lues* since that Time, say that is *new* with respect to us; but that it is ancient, as other Diseases, with Regard to the *American*, as at *Florida*, where it is as common, as it is easy to be cur'd, and, it is no less frequent in the Western Parts of *America*, add the same Authors, than the Small-Pox in *Europe*. They say also, that the People

*the Venereal Disease.* 171

ple of the Country take of the Decoction of *Guaiacum* fresh, with which they mix the Juice of a certain Plant, which grows in the Country.

THIS bad Merchandise, as other Authors say, came from the other *World* by *Christopher Columbus*, who made a *Voyage* in the Year 1492, from whence he came back in 1494. The better Part of the *Soldiers* being return'd into *Spain* with this *Lues*, which they got in the *Indies*, were sent to the Army against the *French*, where they sow'd it so well, that the *French* Army were more endamag'd by this Disease, than their Arms.

IT is not Historians only, that have spoken diversly of the Origin of this *Lues*; *Van Helmont* has a Fancy pleasant enough, he says, that it proceeded from Copulation of a Man and some Beast which had the *Farcin*; but without doing Injury to the Reputation of so great a Man, one may justly look upon this Opinion as Vifionary.

THERE is good Reason to believe, that this *Disease* is as ancient as the *World*; and if we read the *Debauches* often, the Pains which *Tacitus*, and *Suetonius* attribute to *Tiberius* with *Reflexion*, we may assure our selves, that he had not the Disease of *Naples*, but that of *Caprea*, the Place of his Diversions and ordinary Pleasures.







CHAP. III.

*Of the Cause of the Lues.*

**F**ROM the *History* I have given you of the *Lues*, we ought to be convinc'd, that it is of the Number of *Contagious Diseases*, that is, of those which communicate themselves by the *Touch* of an infected Person to others who were before free.

LET US now see of what Nature this *Virus* is, and how it acts to produce its Effects. If we consider, that a little Leaven is capable to lift up the whole Mass of Paste, and that a little Barm ferments Tuns of Liquor, that some Drops of *Spirit of Vitriol*, or *Juice of Citron* immediately

diately curdle *Milk*, and that afterwards, the least Part of this fermented Substance, has the Power of fermenting others, and these others also *In Infinitum*, if I may so say ; we shan't be surpriz'd, that a little *Saliva*, a few Drops of corrupted Humor, or some volatile Parts exhaling from a pocky Person, shou'd enter into another yet uninfected, and occasion the same Fermentations: But as all these Leavens are acid and tartareous, we have all the Reason in the World to believe, that the Venom of this Malady communicates it self by Virtue of some Tartareous Parts, which constitute the Nature of this *Virus*. It is not credible, that this *Acid* continues always the same ; at first Seizure, we have Reason to look upon it as compos'd of some volatile Parts, capable of raising a simple Fermentation, which opens the Principles of the *Blood*, and which ever seizes in Proportion as the *Blood* exalts it self ; in such Sort, as that this Acid becomes Arsenical, corrupts and thickens the *Semen* and other liquid Substances,

stances, pricks the *Nerves*, and *Tendons*, and makes the Bones *carious*.

THE Experience of many unfortunate Persons, who complain soon after impure Embraces, gives us so sensible Proofs, that there is no Room left to doubt of it. They feel presently an Itching upon the *Glans* and *Prepuce*, with Pain and Inflammation, which is follow'd soon after with many rebellious, malignant and corrosive *Ulcers*, which are the true Effects of an acrimonious and sharp *Humor* like *Aqua fortis*, which make such deep Eschars in the Parts. All these Accidents may happen by other Means, as we have already said, and to other Parts; as for Example, to a Child's Mouth, which has suck'd an infected Nurse, or to a Woman's Breasts, which has given suck to an infected Infant, or to the Hand of a Midwife, bringing infected *Women* to Bed, or *vice versa*, or lastly in the Habit of the *Body*, by lying in infected Linen.

IT is not hard to comprehend how this *Virus* passes into the *Mass of Blood*; its penetrating and active *Particles* enter first into the *Capillary Veins*, from thence into the larger, till it at last it insinuates into the Habit of the Body by the *Circulation*; and it is in this Manner, that all contagious Diseases communicate themselves.

IT is beyond doubt, that the *Blood* is the Matter and Aliment, which nourishes the Parts, and this *Nourishment* is the *Foundation* of all the *Oeconomy*, which causes the Animal to subsist, and live. If the *Blood* have all the Qualities requisite for good, laudable, and natural *Assimilation*, there is no Fear, but the Animal will perform all its *Functions* well, and live commodiously: But if it is corrupted, this *Oeconomy* will be overturn'd; we see *Troubles* all over them, all their *Functions* will be imperfect, or impeded; there is no Part, but will suffer, and be attacked with Diseases. We have prov'd by  
*Rea-*

*Reasons* and Experiences, very sensible, that the Cause of the *Lues* is an acrimonious Acid, and that it is its Points, which disturb the Blood, and affect its Circulation; let us now come to the Methods of Cure.





## CHAP. IV.

*Of the Cure of the Lues.*

**T**HE greater Part of such, as have undertaken to explain the *Venereal Disease*, and to give us the Cure of it, have usually ended where they ought to have began; it is not, that this *Method* changes therefore, either the Manner of Treatment, or that it is more difficult to be comprehended; but I have thought, that we ought to follow the *Malady*, Step by Step, and attack it in its Birth, and Beginning.

LET



LET us give the Means of hindring, if possible, that its *Forerunners*, don't lodge within us ; because if once it enters, we must make use of the most potent Remedies, to extirpate it, for the ordinary ones have no Place.





## C H A P. V.

*Of the Gonorrhœa.*

WE have said, at the Beginning of this *Treatise*, that the *Forerunners* of the *Lues* were three in Number; the *Gonorrhœa*, vulgarly call'd a *Clap*, a *Shankre*, and a *Bubo*.

THE *Gonorrhœa* is the most frequent of all, the most difficult, and the longest in curing: But it is not so often follow'd by a *Pox* as the other two. We call it *Gonorrhœa*, because it is a continual *Flux* of a glairy, purulent, and corrupted *Matter*, from the *Urethra*, attended with a very painful *Heat* in making *Water*.

The

*the Venereal Disease.* 181

The Reason of this *Running* is an Ulcer in the *Prostatæ* and *Glands* all along the *Urethra*. These *Prostatæ* Glands are filled with Vesicles, like *Hydatides*, full of a glairy *Humor*, which discharges it self into the *Urethra*; they open at the Place of the *Seminal Vesicles*, where there is a small *Caruncle*, which is their *Valve*. In short, the immediate Cause of the Distemper, or Ulcer, is an acrimonious *Humor*, communicated to the Parts by an impure *Embrace*: Altho' this continual Running causes a great *Dissipation* of Spirits, and that it appears, it would weaken the Body in a small Time, and emaciate it; nevertheless we see, that such, as have this Illness, keep up very well for a long Time, without any very ill *Appearance*, save a *Paleness*, because this *Discharge* is an *Impurity*, and upon *Condition* they apply for a Cure in Time, and to expert Persons, a *Pox* seldom follows. The manifest Signs of this *Distemper* are a Running of a yellow, brown, or green *Matter*, sometimes also bloody, a great and intolerable *Pain* in making

182      *A short Discourse on*

making *Water*; the Ulcer is the Occasion of the former, and the *Inflammation*, and *Sharpness* of the Urine, the Cause of the latter; and as the *Inflammation* is caus'd by the Ulcer, and accompanies it a long time, after it is form'd; so also the painful *Heat* proceeds from the *Water* passing over it, and accompanies it also a long time.

THE *Prognostick* Signs, which give us to understand the *Event* of this *Distemper*, are the Nature of the Pain, and the *Quality* of the *Matter* which flows. If the Pain be little, and the *Matter* white, this Disease won't be dangerous; it will be soon cur'd, and with few proper *Remedies*; but on the contrary, if the Pain be intolerable, and the *Inflammation* be so large, that it seizes not only upon the *Glans*, but also the *Corpora Cavernosa*, so as to cause an *Erection*, and that the *Matter* is yellow, or greenish, the *Distemper* is suspicious, virulent, and very hard to cure; and thus *Gonorrhæa's* differ in more and less; they have all something  
of

of a *Virus* in them, and have nothing common to simple *Heats*, of which we have no Design to treat here.

To treat this Distemper, according to the *Rules* of Art, we must have Regard to three Things, to wit, to the *Cause*, which is a *Virus*; to the *Disease*, which is an Ulcer; and to the *Symptoms*, which are *Heat* and *Pain* we feel in making *Water*.

WE take off the Ulcer by *Desiccants*, the *Virus* by *Purgatives*; and the Pain and Heat of Urine by *Refrigerants*; but as we cannot well answer these three *Indications*, at one and the same time, and that we must observe the Order and Time of the *Remedies*, before we attempt the Cure of the Ulcer; we must take off the *Virus*, which produces and foment it, and before we take of this, we must moderate the Inflammation, which hinders the carrying off the *Virus*, and desiccating the Ulcer; so that we must begin



184 *A short Discourse on*

gin with the Inflammation, then take off the *Virus*, and finish with the Ulcer.

THE *Virus* acts slowly and insensibly in the Beginning; afterwards it insinuates it self deeper, and it corrodes some small Capillary Vessels, so that from this corrosive Blood issues forth, attended with Heat; the third and following Days, the Inflammation increases; there is a *Phlegmon* around the Neck of the *Bladder*; which makes the Passage of the Urine difficult: This Inflammation sometimes communicates it self to the *Intestinum rectum*, by reason of its nearness, and to the *Glans*; from hence it arises, that they who are troubled with the *Stone*, feel a greater Pain at the End of the *Penis*, when they make Water, than they feel in the *Perinæum*, or at the Sphincter of the Bladder. The 6th Day, sometimes sooner, sometimes later, there runs forth an Humor like unto Milk, which afterwards thickens and continues to run in the Consistence of *Sperm*: This Humor is a Mixture of imperfect Seed and *Pus*, which comes



*the Venereal Disease.* 185

comes from the Ulcer, not only in the Passage, but also in the *Prostrata*, and often the *Vesiculæ Seminales*.

WE take off the Inflammation by *Refrigerants*, and as nothing cools more than Bleeding, which takes off the Plenitude, we shou'd often begin with it, particularly where the the Inflammation is violent; and before we attempt it, we ought to give an Emollient Glisten, not for the Sake of emptying the Bowels of their Excrements, but because it serves for a *Fomentation* to the *Rectum* and Neck of the Bladder, and allays their *Heat*, and eases their Pain, and does the same Good here, as *Fomentations* do, (compos'd of *Emollients*) in Inflammations elsewhere.

THE Patient must observe to live upon a cooling and moistening Diet; such are Soops in Summer, in which are boiled *Lettice*, and such cooling Herbs; he must refrain from Wine at the Beginning, and ought to drink Whey or Ptisans,

B b

into

186 *A short Discourse on*

into which he must often put a little *Sal Prunellæ*, which may be softned with a little Pouder of *Liquorice*; he must avoid any Meats, pepper'd or salted, and to be short, he must avoid Wine, and Exercise of all Kinds.

HE must take the first Day some Emulsions, or some Glasses of Whey, in which any cooling Syrup may be dissolv'd, as *Violets* or other; after having satisfied the first *Indication*, that is, after having taken away the Inflammation, and we find that the *Penis* is no longer inflam'd, and the Patient feels no more Pain nor Heat, we must betake our selves to the second Intention, which is to take off the *Virulency* by *Purgatives*. We must always begin the Cure by the most gentle Purgatives, such as *Cassia*, and *Crystallum Minerale*, which may be mix'd in a Pint of Whey, which the Patient may drink off at twice; after these Remedies, they may be purg'd in different Ways.

By a Decoction, in the following Manner, Boil *Sena* of *Alexandria*, 4 Drachms,  
*Cassia*

*the Venereal Disease.* 187

*Cassia* half an Ounce, *Cardamoms* one Drachm, in a Pint of Water, down to half a Pint, strain this Liquor, add to it two Ounces of *Syrup* of *Solutive Roses*, *Cinnamon-water*, three Ounces; take a large Glas of it Evening and Morning, so as that it may work gently, and the Patients may go about their Affairs; this as it works, must be continued for some following Days.

IF this does not cure the *Gonorrhœa*, they must cease taking this Decoction; and if the Matter flow plentifully, and be greenish, they must betake themselves to the use of stronger Purgatives: Such are *Pills*, in which must be *Mercurius dulcis*, and of which we will give the Reader a Description.

‘ Take Amber, Aloes Succotrina,  
‘ Scammony, Flowers of Brimstone,  
‘ of each a Drachm; Cinnamon and  
‘ Mercurius Dulcis of each a Scruple,  
‘ mix them up together with any Sy-  
‘ rup into a Mass of Pills.

B b 2

LEAST

LEAST the Virulency shou'd pass into a *Lues*, the Patient may take three or four of these Pills, that is to the Quantity of a Scruple, and they will infallibly carry off the Virulency, and then we may, without any fear of Inconvenience, satisfy the third Intention. I say, without fear of any Inconveniency, because if, before we have purg'd enough to take off the *Virus*, we shou'd make use of deficcant and astringent Injections, which hinder the running of of this corrupted Matter off, according to Natures Design, it wou'd throw it self either upon the Testicles or the Groin, and so occasion either an Inflammation of them, or a *Bubo*.

WE must not then make use of Injections, till towards the End; or where the Matter ceases to run, or runs but little; and that it is white, and of the Consistence of Whey; because, these are Remedies of no great Effect, and which we must lay no great Stress upon, since they cannot penetrate to the Ulcer; nevertheless, because  
Use

*the Venereal Disease.* 189

Use will have it so, and that there may be some Ulcer in the *Urethra*, which continues the Running, it wou'd be of use to make the following Mixture up and inject.

*Take Smiths-water and Claret, of each a Pound, dissolve in it a Drachm of white Vitriol; inject a little of this warm'd, Morning and Evening.*

Or,

*Take Plantane-water a Pound, white Troches of Rhasis a Drachm, Sugar of Lead half a Drachm. Inject it warm, Morning and Evening.*

BUT if these Remedies answer not our End, there is Reason to fear, that the Patients will be pox'd. Wherefore the best Method in this Case, is to observe a strict Diet for fifteen Days, and to sweat with

190 *A short Discourse on*

with the Decoction of *Guaiacum*, Morning and Evening in a *Bagnio* for a small Time; for the Use of this Decoction will evaporate the Remainder of the *Virus*, and will perhaps throw out Scabs, or Ulcers, after which they must cease from sweating, and expect a Cure from the *Grand Remedy*.







CHAP. VI.

*Of Ulcers of the Penis.*



LCERS of the Penis, commonly called *Shancres*, are the most common Fore-runners of the *Lues*; they are the Effects of virulent Humors, which fix upon the Surface of the Prepuce, and which insinuate themselves between the *Glans* and *Prepuce*, during an impure Embrace. It is observable, that the *Jews*, or others circumcis'd, take not this Disease so frequently as others do, who are not; and they, whose *Glans* is uncover'd, are not so susceptible of this Infection, as they whose Prepuce hangs to low; and for such as wash after Venereal Embraces, they frequently

quently escape any Infection, which without this Precaution wou'd have been unavoidable.

THE Signs of virulent Ulcers, are the Roundness, the Whiteness, the Callosity of the Edges, and a sharp Pain. Those of the Prepuce are more dangerous, than those of the *Glans*, and one only is more dangerous than many together. Altho' these Ulcers are often follow'd by the *Lues*, nevertheless they are not so tedious, or so hard to cure as a *Gonorrhœa*; because the Ailment being partly outward, Remedies can be the easilier apply'd; but also, altho' it is usual to cure it, one is not assur'd to be free from the Pox.

In curing a *Shankre*, we must regard two Things, to wit, the *Virus* and the *Ulcer*: We dry up the Fountain by purging with the same *Remedies*, which we use in the *Gonorrhœa*; all the Difference there is, is not to cool so much here, neither by Liquors nor Diet, for fear of hindring, in the Beginning, the Suppuration  
of

of the Ulcer, which we must promote by Pledgets charg'd with Suppuratives, mix'd with red Precipitate, or Quicksilver in Turpentine; for the Suppurative carries on the *Suppuration*, and the Quicksilver consumes the spongy Flesh, makes the Eschar fall and drys the Ulcer, which coming to Cicatrise, leaves the Edges hard and callous. *Vigo's Plaster cum Mercurio*, is a great Help to soften it. If after the Eschar is fall'n off, others spring up, we must touch the Ulcer with the *Lapis infernalis*; if it yeild not to this last Remedy, we must have Recourse to the Diet of fifteen Days, as mentioned in the *Gonorrhœa*, to the End, that if any ill Symptom appear in that Time, we may dispose the Patient for a *Salivation*.





CHAP. VII.

*Of a Venereal Bubo.*



*BUBO* is a Tumour happening to the Glands of the Groin, by Obstructions.

THIS Symptom is advantageous and favourable to such as it happens to, because it often frees them from the *Pox*, which is, as we have said, an Epitome of all Evils.

THE Signs. of this Symptom are evident, the Patient has, on the Groin, or on both Sides there, a Pain with a Hardness, which grows insensibly up into a Tumor; and it is certainly a *Crisis* of a *Pox*,

a *Pox*, since it suppurates easily. We must then forward its Suppuration by all Means possible; for this Reason it is, we must not turn off the Humors by Bleeding, Purging, Coolers, and Repercussives, but on the contrary we must heat the Body by Exercise and good Diet, not to Excess; because all violent Exercise, and too heating Nourishment, such as Brandies, *Spanish* Wines, Garlick, Onions, Pepper, and other Things of that Nature, which by their Particles exhale the more subtile Parts, thicken and coagulate the Remainder, and hinder Suppuration, which is generally the Consequence of a moderate and gentle Heat.

AFTER having regulated their Diet, without premising the general Remedies, we must content our selves to apply such Topicks, as will advance Suppuration, such as *Galbanum*, and other Suppuratives, mention'd in the *Treatises of Surgery*, almost every where.

THERE are *Bubo's*, which easily come to Suppuration, and others more difficultly. We pierce the first Sort, with a Lancet, as soon as the Matter is form'd, and the others with a Caustick, before they are ripe; because shou'd we wait for Suppuration in these latter, full of a viscidous and hard Stuff, the Patient might be pox'd first.

WHEN the Tumor is great, red and painful, we must apply a Train of Causticks, and make in the Eschar a large Incision with a Lancet, and keep it open with *Diachylon*, under which is a Suppurative, and 'tis advisable to keep on these Suppuratives a long while.

FOR greater Security we must purge the Patient after Suppuration for some Days. The Diet and Purgatives shou'd be the same, which we have order'd for the other two Fore-runners of the *Pox*.

THE



THE Ulcer being dry'd, we must incarn and cicatrise; if nevertheless after all the Help of Physick, there should appear any Signs of the *Pox*, we must cause the Patient to resolve to undergo the Method, we are going to mention, which is the shortest and surest, which can be made use of in this troublesome Disease.





## CHAP. VIII.

*Of the Manner of Treating the  
Lues.*

**M**ANY Remedies do contribute to begin the Cure of the *Lues*, but *Mercury* alone can only finish it. This proud Disease yields to no other; it plays with all the Machines made use of to extinguish it, and it retires seemingly from the Patient, only to torture him the more afterwards.

*Guaiaicum*, *China*, *Salsaparilla*, and such like *Drugs* brought from the other World, are no more acknowledg'd for *Alexipharmacks*, or for *Specificks*. Such as we find in our own Continents, are only useful for other Diseases; but in this Case they

they serve to cure some weak Spirits of the Opinion, they have of being attack'd with an Evil, which we ought truly to fear, and that they wou'd well deserve to have, since they use so many *Drugs*, which heat much, fuse the Blood, and turn it into *Serosities*, or which in augmenting the *Circulation*, occasion rather *Obstructions* in the Muscles, which cause *Rheumatisms* with insupportable Pains, which the *Ignorant* look upon as Symptoms of the *Pox*. In short, these Remedies often leave an ill Impression on the *Viscera*, which hurry on *Death* to poor Patients; and we wou'd do much better to change the Diet from drying to Moistners. The *Bagnio's* and *Perfumes*, in which many have dyed of *Syncope's* and *Apoplexies*, are only Inventions to put an End to this Tragedy the sooner.

THE frequent use of Purgatives is very beneficial; but by their *Administration* only; we cannot root out the *Disease*. They disperse the Pustules of an ordinary Scab

Scab well enough. but not those of the *Lues*. They discharge the Body of a great deal of corrupted Humors, but not of the *Virus*, unless it be fresh, and has not seiz'd upon the solid Parts; for then the *Virus* is so insinuated into the very Marrow of the Bones, that we see the Body all over running with Matter, and so loaden with *Sanies*, that it is ready to rot and emaciates extremely, unless we have *Recourse* to *Mercury*, which is the only *Remedy* we can employ to eradicate a *Pox*, without the Fear of *Relapse*, let ignorant Men say what they please.

BUT if it be true, that *Purgatives* require great Caution in their use, how much more does *Mercury* require, which is the *Grand Remedy*? It is not enough to have the Signs of the *Pox*; in order to treat it well, see that the Body have not us'd too many *Remedies*, or at least there be no Fever. The Spring and Fall are favourable Seasons, when Necessity requires it, and we easily obtain our  
Ends

Ends if we observe the following Directions.

AFTER having given a Glister or two, we bleed once or twice in the Arm. We purge the Patient with a Potion of *Sena*, *Cassia*, and Syrup of Solutive *Roses*; at Night we cause them to bathe in warm Water for two Hours, and an Hour after, we give them a little roast Meat. The next Day early in the Morning, they must go again into the Bath, where they must stay as long as at first; and after they are come out, or while they are in it, they must live on *Soup*, in which cooling and soft Herbs have been boil'd. At Dinner they must also live upon *Broths*; at Night again they must enter the Bath, and continue this *Regimen* in the same Order we have prescrib'd, for six Days, or more. The *Surgeon* who takes Care of the *Patient*, and who knows his *Constitution*, must purge him as he judges proper, and must change the Water of the Bath daily. The Patient must again be purg'd every three Days with the same

D d

*Reme-*

*Remedy* we have spoke of, and must even take it in the Bath early in the Morning, about half an Hour after he has been in. The Baths being ended, they must have *Mercury* given to raise a *Salivation*, were these Cautions more punctually observ'd, so many wou'd not fail, as daily do for want of them: For if we give *Mercury* to raise a *Salivation*, we design first to render the *Blood* more fluxile, that it may run more easily thro' the Glands; and when *Mercury* is given, and a plentiful Flux does follow, the Reason of this failure, is our not having comply'd with these Cautions.

*Mercury* is differently prepar'd; it is sublim'd, precipitated, poudred, or liquid; and according to the different Preparations it is made by, it purges by Vomit, Sweats, by Urine, Stools, and by the Mouth: But in what Manner soever we prepare it, it is always the same, and all this only serves to make it more volatile, and peirce more easily into the Body, for producing the Effects we expect.



OF all the Methods, none is more sure than a *Salivation*; and to promote it, we use divers Means, whether by making them take it by the Mouth, or applying it externally. We give it by the *Mouth*, in a *Bolus*, made up with *Mercurius dulcis* and *Conserve of Roses*, or we give red Precipitate made into Pills with a little *Honey*. The Pills have a more considerable Effect than the *Bolus*; but they are more violent, and by Consequence more dangerous, by Reason of the *Vomiting*, which they excite, in the Form of a *Cholera Morbus*, this Practice is very dangerous. We apply it externally with Plasters, Ointments, and Perfumes. Plasters are inconvenient, and act slowly. *Frictions* are more in use, than Perfumes; and Perfumes more than Plasters. Of all these different *Methods*, the most sure, the most us'd, and the least dangerous is the *Friction* with a *Mercurial* Ointment; which is made with *Hogs-Lard*, and a third or fourth Part *Mercury*, in the manner following.

*Take crude Mercury one Pound, with three Drachms of Venice-Turpentine, stirring them well together in a Mortar, till the Mercury is kill'd; then mix by little and little two or three Pounds of Hogs-Lard; and bring it to the Consistence of an Ointment, and keep it for use.*

WHILE the Patients uses Remedies for a *Salivation*, they must keep their Chamber, their Bed, and their Room must be kept warm, but not choaking. The Bed-Cloaths must be half us'd. When the *Salivation* is over, it is good to cover more. The Shirt must be us'd before, and it were advisable for the Patient to wear *Trowsers*.

THESE Cautions are not so useless, as they may seem, for too much Care does no Harm. We make the first *Friktion* Night or Morning, two Hours before Meals, or fasting in the *Morning*, with four or five Ounces of the Ointment, with

with which you rub the whole *Body*, from the Feet to the Nape of the Neck, except the Belly, and Breast; to the End that the *Friction* may have a better Effect, it must be rubb'd in before the Fire; or if the Patient is weak, in Bed.

SOME *Practioners* don't rub the whole *Body* at the first *Friction*, and it is an Affair of great Consequence to take Care, by Reason of the Tenderness of some *Constitutions*, as for Example, in young *Men* and *Women*, to whom a *Salivation* happens, if you only rub the *Soles* of their Feet to the Knee; for this Reason, if we shou'd begin presently, and at once to rub the whole *Body*, we shou'd weaken them much, and the Flux wou'd be too violent.

WE must always observe with a careful *Eye*, the Effect of the *Mercury*, looking into the *Patient's Mouth*, from Time to Time, and seeing if there be no *Inflammation*, if the *Tongue* does not become white and thick, if the *Amygdalæ* and  
the

the Palate be not too much swell'd, and the Gums are tumefied. we are yet more afraid of the Effect of the *Mercury*, when with all these Signs they have a Head-ach, or a strong and stinking Breath, a red Countenance, and a Difficulty of swallowing their Spittle, by Reason of a *Roughness* in their *Throats*. Lastly, if we perceive Ulcers in the *Mouth*, if they spit much, and if they speak with *Difficulty*, by Reason of the great Heat of the *Tongue* and *Palate*, we must forbear the *Friction*.

IF the *Salivation* happens not after three or four *Frictions*, there are some who use Perfumes to raise it. They take half an Ounce of *Troches of Mercury*, with *Cinnabar*, which they extinguish with *Sage-Leaves*, to mix it with four Ounces of *Marle*, and to make *Troches* to be dry'd. They make the Patient sit in a Chair, in which there is a *Hole*, under which they place *Charcoal* to burn the *Troches*, and they encompass it with a Blanket, in order

der to receive the Steam, which they suffer not to touch the Head.

OTHERS make their Perfumes with six Drachms of crude *Mercury*, plac'd in a Crucible heated red hot, which they place upon the *Charcoal*.

THERE are *Constitutions*, which are facilitated at the second *Friction*, and others so hard to Flux, that we are oblig'd to use the *Friction* very often, and at last even to give the *Bolus* or *Pills* mentioned above.

THE Method to cure the *Pox* with white or red Precipitate taken by the *Mouth* is very dangerous, as we have said, by Reason of little Ulcers they occasion in the *Mouth*, and of the *Vomitings*, which they raise with *Violence*; so that as a *Salivation* thus raised is violent, it is more advisable to use the *Friction*.

AFTER two or three *Frictions* a *Diarrhæa* often happens, which fatigues the  
Pati-

the Palate be not too much swell'd, and the Gums are tumefied. we are yet more afraid of the Effect of the *Mercury*, when with all these Signs they have a Head-ach, or a strong and stinking Breath, a red Countenance, and a Difficulty of swallowing their Spittle, by Reason of a *Roughness* in their *Throats*. Lastly, if we perceive Ulcers in the *Mouth*, if they spit much, and if they speak with Difficulty, by Reason of the great Heat of the *Tongue* and *Palate*, we must forbear the *Friction*.

IF the *Salivation* happens not after three or four *Frictions*, there are some who use Perfumes to raise it. They take half an Ounce of *Troches of Mercury*, with *Cinabar*, which they extinguish with *Sage-Leaves*, to mix it with four Ounces of *Marle*, and to make *Troches* to be dry'd. They make the Patient sit in a Chair, in which there is a *Hole*, under which they place *Charcoal* to burn the *Troches*, and they encompass it with a Blanket, in order



der to receive the Steam, which they suffer not to touch the Head.

OTHERS make their Perfumes with six Drachms of crude *Mercury*, plac'd in a Crucible heated red hot, which they place upon the *Charcoal*.

THERE are *Constitutions*, which are facilitated at the second *Friction*, and others so hard to Flux, that we are oblig'd to use the *Friction* very often, and at last even to give the *Bolus* or *Pills* mentioned above.

THE Method to cure the *Pox* with white or red Precipitate taken by the *Mouth* is very dangerous, as we have said, by Reason of little Ulcers they occasion in the *Mouth*, and of the *Vomitings*, which they raise with *Violence*; so that as a *Salivation* thus raised is violent, it is more advisable to use the *Friction*.

AFTER two or three *Frictions* a *Diarrhæa* often happens, which fatigues the  
Pati-

208 *A short Discourse on*

Patient very much, and then the *Salivation* ceases; but to assist them, you must throw in emollient *Glisters* of Milk and Yolk of Eggs, and use Opiate Mixtures; and to temper the *Blood* with smooth Decoctions.

WE must gargle, in Order to dry the Ulcers, with a *Decoction of Barley*, in which is some *Mel Rosatum*, or with warm Claret. It is good to touch the Ulcers with *Spirit of Vitriol*, or some other *Acid*.

IN the Time of the *Friction*, we must give the Patient liquid *Nourishment*, such as *Broth*, *Gellies*, or poach'd Eggs; and they must forsake Wine. At the Beginning of the *Salivation*, they must use refreshing and cooling Decoctions of *Barley*, and such like, continuing them to the ninth Day. After which, they must use the Decoction of *China*, *Sassafras*, and *Guaiacum* to the End of the *Salivation*.

IF the Salivation is not plentiful enough, or it stops, we must promote it a fresh by a gentle *Friction*; but if it be excessive, we must weaken it by slight Purgatives, in whose Composition some Acids shou'd enter, in order to precipitate the *Mercury*: But *Aurum fulminans*, or *Flowers of Sulphur* are much better, which suddenly stop the Effects of the *Mercury*.

IT is hard to give a just Rule for the Quantity of *Saliva*, during the ten or twelve first Days; it is reckon'd more or less great, according to the Disposition of the Patient. The middle Measure is two Pints a Day, which may serve as a Rule for others. It is not without Reason, that we shou'd observe the Quantity of *Saliva*, the Patient voids; and to know it precisely, the Patients must spit into a Basin holding a Pint, to the End its Quantity may serve for a Rule to push

E e

it

it forward, if it fails; or moderate it, if it exceeds.

WHEN you see the Salivation ceases, after having run plentifully for twenty, twenty-five, or thirty Days; you must regulate three Things. *First*, You must purge the Patients. *Secondly*, You must make them gargle, to dry the Ulcers, as we have already noted. *Thirdly*, You must make them change their Beds and Linnen. We must purge them, at the End, as we did in the Beginning.

AFTER having purg'd them sufficiently, let them rest for eight or ten Days, let them betake themselves to Wine again, and nourish with good Diet to recover their Strength. If they be nice Persons and lean, they may take every Morning, Asses or Cows Milk, with a Scruple of Pearl in Pouder; for Milk, generally speaking, is a great Assistance in all Diseases, where the Acrimony is

to be corrected. After all these Cautions justly observ'd, there is Reason to hope, that the Patients will very soon recover their good Habit.





## CHAP. IX.

*Of the Nature of Mercury, and  
the Manner of its acting.*

1 **Q**UICKSILVER is a Miracle of a Metal; altho' running like Water, it is nevertheless fourteen Times heavier, and yet evaporates with a gentle Heat. There is Reason to think its Particles round, like little Bullets, and extremely smooth and polish'd; and for the Proof of this Truth, when it is, dissolv'd in *Aqua fortis*, it appears under the Form of little round Bodies, which rise up in Smoak.

THIS



THIS suppos'd, it is, methinks, very easy to give a Reason, why it is fluid and so volatile; for its Particles being round, polish'd, and gliding, the one cannot entangle the other, or find any Obstacle to their Motion; and because they are only contiguous, and have no connexion with each other, so often as they are mov'd a little quicker than usually, they take flight and mount.

WE have said, in speaking of the *Lues*, that it was occasion'd by an acrimonious Acidity, and that all its Symptoms, which accompany it, are rais'd from this Matter; It is then impossible to cure it, without mortifying the Points of this Acid; and Experience has made us know, that no Body, save *Mercury*, can carry it off.

*Chymistry* informs us, that when we blend *Mercury* with acid Salts, that they unite together, become volatile by Heat, and form a Sublimat. Nearly the same Thing happens in our Bodies: For after  
having

214 *A short Discourse on*

having us'd *Frictions* with the *Mercurial* Unguent, it penetrates the Pores, the Heat of our Body sublimes it, and meeting with Acids, it joins in with them, and makes a Sort of Sublimat, almost in the same Manner, as in Chymical Preparations. All these acid Points being entred into the Pores of the *Mercury*, are carried along by the Circulation of the Blood, loaden with this Poison, coming to pass the Glands of the Mouth, raises Ulcers in these *Salivary* Ducts, which relax and give Way to this Salivation. Thus it is, that *Mercury* carries off the corrosive and acrimonious Salts, which made such Ravage in the Body.

It must be observ'd, that before we raise a Salivation, there is an absolute Necessity to prepare the Patients by Purgatives, because they weaken the Salts, which reign in the Body; and when these Precautions are neglected, at the first Friction, the *Mercury* mounts with such Violence, that we have sometimes seen



considerable *Hæmorrhages* from the Ulceration of the Glands of the Mouth.

ALTHO' there remain still some Particles of the Salts, after the Salivation; the more subtile evaporate by Perspiration, and the more terrestrial run off by Urine and Stools. And this is the most probable Account, we can give of *Mercury*, in carrying off the *Lues*.



F I N I S.



**BOOKS** Printed for CH. RIVINGTON, at  
the Bible and Crown, in St. Paul's Church-  
Yard.

**E**UODIA: Or a Discourse on Causes and Cures;  
in Two Parts. The *First* contains a short and Easy  
Method, how to discover the Causes of any Disease.  
The *Second* gives plain Instructions how to proceed in  
the Cure of all, but more particularly, Complicated Dis-  
eases. The Second Edition carefully corrected, with Ad-  
ditions. By *Edward Strowther, M. D.*

Mechanical Essays on the *Animal Oeconomy*, wherein,  
not only the Conduct of Nature, Animal Secretion, but  
Sensation, and Human Generation, are distinctly consi-  
der'd, and anatomically explain'd: As also the particu-  
lar Manner of the Operation of a Medicine is account-  
ed for, and many curious and uncommon Subjects are  
treated of. Necessary for all that study Nature, and  
particularly those who make Physick or Surgery their  
Practice. With a Catalogue of the Authors consulted  
thro' the whole. By *James Handley, Surgeon.*

*The Art of Surgery*: In which is laid down such a ge-  
neral Idea of the same, as is founded upon Reason, con-  
firm'd by Practice, and farther illustrated with many  
singular and rare Cases *Medico-Chirurgical*. In Two  
Volumes. With an *Introductory Index*, shewing the  
Contents of each and a double Table at the Close:  
The former *Historical* relating to the Cases: The latter  
*Etymological*, explaining of hard Words, interspersed in  
the several Parts. By *Daniel Turner*, of the College of  
Physicians in London. Price 10 s.

*Lithotomia Douglassiana*: Or, a new Method of Cut-  
ting for the Stone: First practis'd by *John Douglass*,  
Surgeon, F. R. S. and *Lytbotomist* to the Infirmary at  
*Westminster*: To which is added, what has been writ-  
ten by the most judicious *Rossetus*, and the learned *Pie-  
trus* on the same Subject. Illustrated with several Cop-  
per Plates. Price 3 s.

*A General Treatise of Midwifery*. Faithfully translated  
from the French of *Monfieur Dieris*, first Surgeon to  
the late *Dauphinesses*, and Sworn-Master-Surgeon at *Paris*.

2

f  
a

;  
y  
e.  
in  
f-  
d-

n,  
ut  
fi-  
u-  
n-  
re  
nd  
eir  
ed

ge-  
n-  
ny  
wo  
he  
e :  
ter  
in  
of

ut-  
ss,  
at  
rit-  
ie-  
pp-

ted  
to  
ru.